



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

the 1990s, the incidence of *S. flexneri* infections in the United Kingdom has increased, and the incidence of *S. flexneri* infection in the United States has increased in the 1980s and 1990s [10]. In the United Kingdom, *S. flexneri* is the most common serotype of *S. flexneri* isolated from patients with shigellosis, followed by *S. flexneri* serotype 3 [11].

There is a paucity of data on the epidemiology of *S. flexneri* infection in the United Kingdom. In the United States, *S. flexneri* is the most common serotype of *S. flexneri* isolated from patients with shigellosis, followed by *S. flexneri* serotype 3 [12]. In the United Kingdom, *S. flexneri* is the most common serotype of *S. flexneri* isolated from patients with shigellosis, followed by *S. flexneri* serotype 3 [11].

In the United Kingdom, *S. flexneri* is the most common serotype of *S. flexneri* isolated from patients with shigellosis, followed by *S. flexneri* serotype 3 [11]. In the United States, *S. flexneri* is the most common serotype of *S. flexneri* isolated from patients with shigellosis, followed by *S. flexneri* serotype 3 [12].

In the United Kingdom, *S. flexneri* is the most common serotype of *S. flexneri* isolated from patients with shigellosis, followed by *S. flexneri* serotype 3 [11]. In the United States, *S. flexneri* is the most common serotype of *S. flexneri* isolated from patients with shigellosis, followed by *S. flexneri* serotype 3 [12].

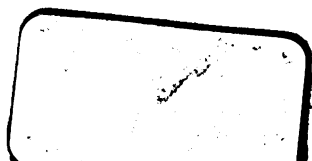
In the United Kingdom, *S. flexneri* is the most common serotype of *S. flexneri* isolated from patients with shigellosis, followed by *S. flexneri* serotype 3 [11]. In the United States, *S. flexneri* is the most common serotype of *S. flexneri* isolated from patients with shigellosis, followed by *S. flexneri* serotype 3 [12].

In the United Kingdom, *S. flexneri* is the most common serotype of *S. flexneri* isolated from patients with shigellosis, followed by *S. flexneri* serotype 3 [11]. In the United States, *S. flexneri* is the most common serotype of *S. flexneri* isolated from patients with shigellosis, followed by *S. flexneri* serotype 3 [12].

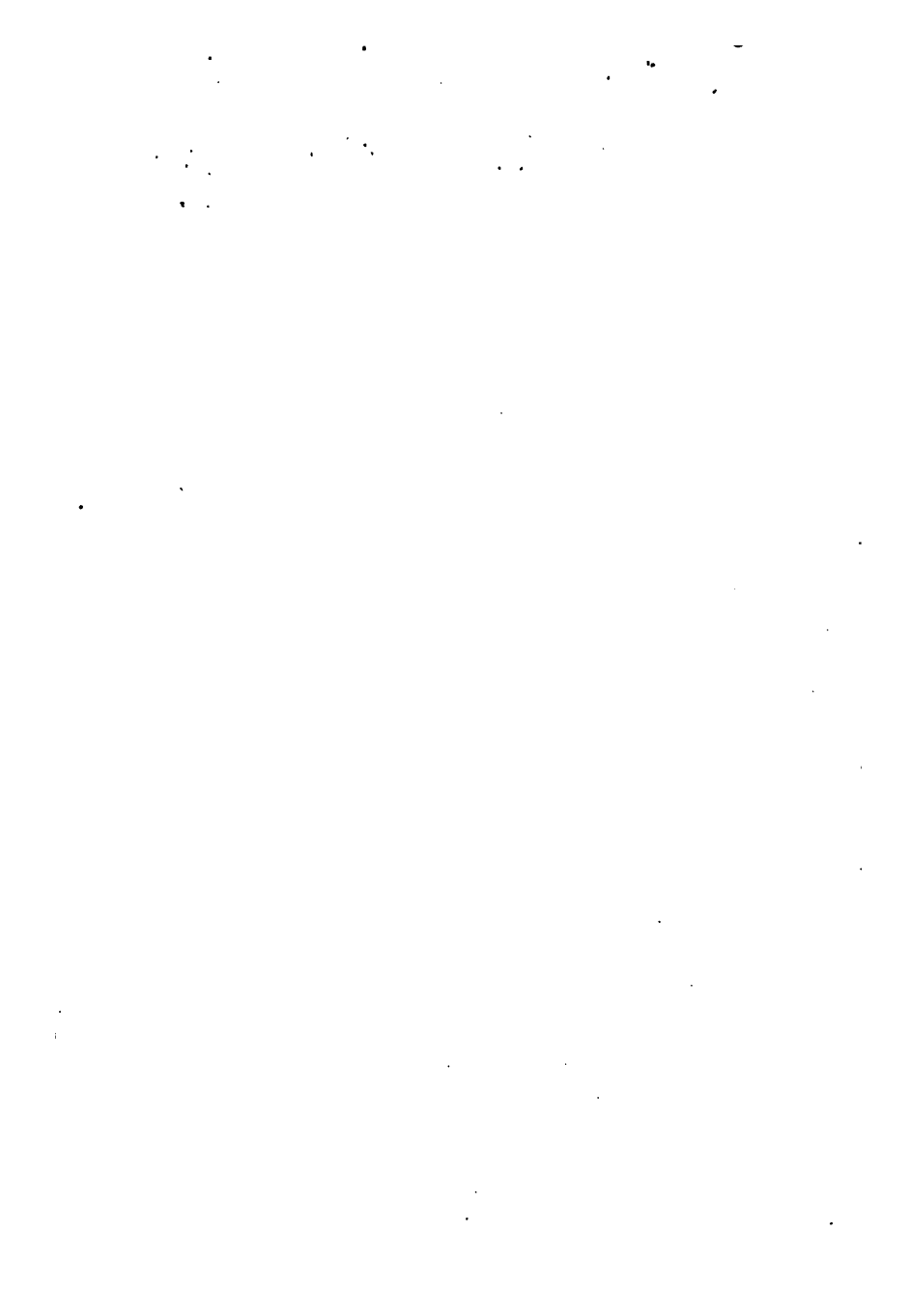
In the United Kingdom, *S. flexneri* is the most common serotype of *S. flexneri* isolated from patients with shigellosis, followed by *S. flexneri* serotype 3 [11]. In the United States, *S. flexneri* is the most common serotype of *S. flexneri* isolated from patients with shigellosis, followed by *S. flexneri* serotype 3 [12].

In the United Kingdom, *S. flexneri* is the most common serotype of *S. flexneri* isolated from patients with shigellosis, followed by *S. flexneri* serotype 3 [11]. In the United States, *S. flexneri* is the most common serotype of *S. flexneri* isolated from patients with shigellosis, followed by *S. flexneri* serotype 3 [12].

3987. f 110^f







THE BATTERSEA SERIES
OF
STANDARD READING BOOKS
FOR BOYS.

COMPILED BY
EVAN DANIEL, M.A.,
PRINCIPAL OF ST. JOHN'S COLLEGE, BATTERSEA ; MEMBER OF THE
LONDON SCHOOL BOARD.

BOOK VI.
FOR
STANDARD VI.

LONDON:
EDWARD STANFORD, 55, CHARING CROSS, S.W.
—
1879.



PREFACE.

THIS series of Readers is intended to follow "The Battersea Primers," but, being graduated in accordance with the requirements of the New Code, may be used with any Primer.

The aim of the Editor in the earlier books has been to give children, at as early a stage as possible, a taste for reading. Once a child has been got to *love* reading, his progress is sure and rapid. Mechanical difficulties soon disappear, or are patiently borne with, for the sake of the matter of the lessons.

The later books contain much interesting and useful information, but all through the series the Editor has subordinated the communication of knowledge to the primary object of a Reader, viz. the teaching a child to read, and the kindling of a desire to use this new acquisition. When the difficulties of scientific lessons are superadded to the difficulties that belong to reading proper, it is not surprising that both science and reading suffer. When, on the other hand, children can read with ease, there are few subjects which they cannot master for themselves.

The plan of Books I. and II. has been to place at the head of each lesson the chief words occurring in it, and

at the end a few sentences in which the words are used in fresh combinations. These combinations, which may be used as dictation exercises, the teacher is recommended to multiply for himself. Young children do not derive much benefit from bare verbal explanation of words, but they readily pick up the meaning of a word, by induction, from examples. This is, of course, the way in which they make their first acquisitions in language,—a fact which the teacher will do well not to lose sight of. We can rarely improve on the methods of Nature.

In Books III. to VI. words are explained, but here also examples are given to illustrate the use of the words glossed. These illustrations are, so far as the Editor has observed, a somewhat novel feature in reading books, and he attaches considerable importance to their employment. A sentence exhibits a word in its organic relation to other words. The difference between an isolated word and the same word in a sentence is the difference between death and life.

The common defect in the reading of our elementary schools is its lack of intelligence. This is partly owing to ignorance of the matter read, a cause which can only be assailed through the general culture of the whole school; but it is very largely owing to the limited vocabulary of the children. They have frequently to read of things unknown in a language unknown. Hence no opportunity should be thrown away of familiarizing them with the meaning of such words as they are likely to encounter in their reading.



The Editor would strongly urge upon teachers the importance of getting their pupils to *prepare* the reading lessons. Five minutes spent in learning the hard words, by way of preparation, would save much loss of time in the subsequent course of the lesson, and would render needless those constant interruptions, by which, to the hindrance of an intelligent comprehension of the passage read, and to the great discouragement of the learner, the continuity of the reading is otherwise so frequently broken.

The historical episodes in Books IV. to VI. follow the divisions of English History prescribed for the three upper standards in the New Code, and will, it is hoped, be of service in inspiring and fostering a taste for History. It is impossible for children to take a real interest in History so long as their acquaintance with it is limited to the meagre skeleton of facts contained in our ordinary school compendiums. The Editor has endeavoured to set forth the leading events of English History at such length as to whet the curiosity to know more. Once the leading events are mastered, it will be an easy matter to fill up the interstices.

The extracts from books of travel have been inserted with the similar intention of awakening an interest in foreign lands, and will be found useful in connection with the study of Geography.

The poetry has been carefully selected with an eye to the tastes of children, and more especially of boys. We too frequently forget that what is absolutely best in literature is not always suitable for the perusal of

children, and that the tastes of boys and girls are not precisely identical. At the same time it is desirable that poetical selections should never fall below a reasonable standard of excellence, and that no single side of a boy's nature should be too exclusively ministered to. The ideal boy is not without some of the tenderness, quick sympathies, and warm affection of a girl.

The Editor has to express his grateful acknowledgments to Mr. Murray, Messrs. Sampson Low and Co., Chapman and Hall, Macmillan and Co., Bell and Sons, Chatto and Windus, Hurst and Blackett, Longman and Co., Bentley and Son, W. Blackwood and Sons, Mr. Thos. P. Bigg-Wither, Mr. J. Macgregor, Mr. W. Hepworth Dixon, Dr. W. H. Russell, the Rev. J. G. Wood, the Rev. R. Wilton, the author of 'Ballads from English History,' Mrs. R. S. Hawker, and Canon Clarke, for their kind permission to insert extracts from their various publications.

CONTENTS.

The titles of the Poems are printed in Italics.

	PAGE
STRINGING THE NERVES ('Chambers' Journal')	1
ENCOUNTER WITH ARABS ON THE JORDAN (Part I.) (J. MacGregor)	7
ENCOUNTER WITH ARABS ON THE JORDAN (Part II.) (J. MacGregor)	12
<i>The Battle of Flodden Field</i> (Sir W. Scott)	21
DISCOVERY OF THE PACIFIC OCEAN (Sir A. Helps)	27
<i>The Affliction of Margaret</i> (Wordsworth)	30
FROM PARIS TO NORWAY IN FOURTEEN HOURS ('Chatterbox') ..	32
<i>Sir Thomas More</i> ('Ballads from English History,' Nat. Soc.)	40
THE NEW ZEALAND SNOWSTORM OF 1867 (Lady Barker) ..	46
THE ORIGIN OF ROAST PIG (Charles Lamb)	58
LADY JANE GREY ('Old England')	63
VOLCANO OF KILAUEA (Miss Bird)	65
THE WEATHER AND CLIMATE OF ENGLAND (Dr. Mann) ..	75
THE EXECUTION OF MARY QUEEN OF SCOTS	80
<i>Mary Queen of Scots</i> (Bell)	85
THE SPANISH ARMADA	89
<i>Killed at the Ford</i> (Longfellow)	94
A GREAT GEYSER (Earl of Dunraven's 'Great Divide') ..	96
<i>Death of Leonidas</i> (Croly)	101
THE WONDERS OF THE YELLOWSTONE	103
LIFE IN A WATER-DROP ('Sharpe's Magazine')	109
A TERRIBLE FIFTY MINUTES (J. F. C. in 'Chatterbox') ..	114
<i>Barbara Frietchie</i> (J. G. Whittier)	122
THE GUNPOWDER PLOT (Goldsmith)	124
THE ARAB PRIESTS AND THE ECLIPSE (Landon)	129
WONDERS OF NATURE ('Chatterbox')	134
<i>The Parting of Charles I. and his Children</i> ('Ballads from English History')	138
AN ARMY OF ANTS (T. P. Bigg-Wither)	141
THE BREATH OF LIFE (Faraday)	148
EXECUTION OF CHARLES I. (Lingard)	151
<i>The Three Sons</i> (Moultrie)	155
A DROP OF WATER ON ITS TRAVELS (Part I.) (Abridged from Miss Buckley's 'Fairy-land of Science')	158
A DROP OF WATER ON ITS TRAVELS (Part II.) (Abridged from Miss Buckley's 'Fairy-land of Science')	163

	PAGE
A THRILLING ADVENTURE ON THE ICE (R. J. Bush)	167
<i>Marston Moor</i> (W. M. Fraed)	171
THE BATTLE OF NASEBY (Thorne)	173
<i>The Battle of Naseby</i> (Macaulay)	181
MY MONKEY JACKO (Part I.) (Abridged from F. Buckland's 'Curiosities of Natural History')	184
MY MONKEY JACKO (Part II.) (Abridged from F. Buckland's 'Curiosities of Natural History')	191
THE PLAGUE	202
THE GULF STREAM (Maury)	208
<i>The Song of the Western Men</i> (Rev. R. S. Hawker)	214
DISCIPLINE (Author of 'The Heir of Redclyffe')	216
THE BATTLE OF THE BOYNE ('Old England')	221
RELIEF OF LONDONDERY (Macaulay)	226
THE COUNTESS OF NITHSDALE (W. H. Dixon)	228
FLORA MACDONALD (Lord Mahon)	232
BESSET IN THE ICE (J. Payer)	235
<i>The Old</i> (J. Hookham Frere)	242
THE BLACKHOLE OF CALCUTTA (Prince)	243
THE DEATH OF WOLFE (Parkman)	250
DISCOVERY OF NEWFOUNDLAND (Warburton)	255
<i>The Indian</i> (M'Lellan)	258
BLAISE PASCAL ('Chatterbox')	260
MARVELS OF HUMAN CALORIC (Dr. George Wilson)	262
<i>Paul Revere's Ride</i> (Longfellow)	268
THE BATTLE OF WATERLOO	272
SEVEN MILES UP IN THE AIR ('St. Nicholas Magazine')	276
HISTORY IN WORDS (Archbishop Trench)	283
THE DEFENCE OF JELLALABAD (Alison)	291
<i>The Forging of the Anchor</i> (S. Ferguson)	298
DIVERS ('St. Nicholas Magazine')	301
OMENS (Sir Humphry Davy)	308
BATTLE OF BALACLAVA (Dr. Russell)	313
<i>The Death Ride</i> (Dr. Westland Marston)	316
THE CITY OF THE DEAD (W. Evill)	319
DRIVER ANTS (Rev. J. G. Wood)	324
<i>The Alma</i> (Archbishop Trench)	329
THE DEATH OF NELSON (Southey)	331
<i>On an Infant's Death</i> (Rev. R. Wilton)	334

STANDARD VI.

LESSON I.

STRINGING THE NERVES.

AN ENGINE-DRIVER'S TALE.

OURS is a new line—a very new one—running through miles of unsettled country, where it's no wonderful thing to make out in the far distance half-a-dozen Indians galloping along with their hair and blanket streaming out behind; and more than once I've wondered how it would be if one of those painted beauties was to collect his friends, and pull up the line. And, mind you, tomahawk and scalping-knife are not things only to be heard of in Cooper's novels, for they are in use to this very day, so that more than one Sioux or Pawnee warrior can display his bloody scalps torn from the heads of the hated whites by his treacherous hand. It seems very horrible, no doubt, and to belong to the past; but, for all that, such things are taking place every day in the Far West.

Now, it's through this part of the country that our line runs, and for years past I've driven on that line. I drove there when it only ran twenty miles; and I ran along that line as it stretched out farther and farther into the great region westward till it went its hundreds.

We've cow-catchers on our engines, and nothing to

laugh at neither. On your few mile-long lines you can fence; but when your line happens to get over a thousand miles, fencing becomes expensive, and would make a hole in the profits! so that it was soon found necessary to have something in front that would throw off a cow or a bullock if it had strayed on to the line; or else, being an obstinate sort of a beast, it might throw off the train. For they will stray, and there's no mistake about them, and when you see them there, and sound the horn—for we use that as well as a whistle—instead of the stupid things getting off and into safety, they'll go galloping on in their clumsy cock-tail one-two-three amble, till we catch up to them, and then—well, I should say that in my time I've made beef of a score of cows, though I never made an end of a fellow-creature yet, I'm thankful to say. I was very near it though once.

You've laughed about the stokers going out in front on to the cow-catcher, to heave billets of wood at the brutes; but it's a fact, and I've done it before now; and a good crack from a cornerish piece of wood has saved them, making them give a kick and a plunge off the single line, and giving us room to go by.

But there are things that will not get out of the way, do what you will; I believe you might sound the horn or whistle, or whatever you'd got, at any old woman who was crossing the line, and she'd only stand still and stare; while if you had a billet of wood, she'd only shake her umbrella at you, and call you a villain. They're dreadful creatures are old women, and if it were not for the thought that they were once young, I don't know how we should bear them. They don't seem to understand railways at all; they never have their tickets ready; they're always either too soon or

too late; and when once they are in the car, they bother everyone to death, and drive the guard mad by expecting that folks have entered into a conspiracy to carry them right past their destination. Why, a friend of mine, a guard on the line between New York and Chicago, once told me of an old lady going to the last place and wanting to get out at the first station.

Well, putting cows first, and old women second, the next on the list, to my way of thinking, stand children, bless them! I love children, have half a score of them myself, but they always give me the cold shivers when I see them near a railway. For you see, I suppose for company's sake, being an out-of-the-way lonely spot, there was a chap built himself a log-shanty close to the line, where he had made a bit of a clearing, and perhaps he thought it would be a bit of company for his wife and little ones to see the trains go by with people in, besides being a bit of protection from the wandering tribes about; for you see, where a man sets up his tent, as you may say, out in the wilderness, he's obliged to run risks; so any chance, however small, of making it less risky is snatched at.

I got quite to know those people, and hardworking folks they were. Why, before they had been there six months, that bit of wilderness began to look like a little garden of Eden; and two more came and pitched in the next bits. I quite knew those first folks, though we never spoke; for I always went by them at twelve miles an hour; but the little ones used to stand at the shanty-door and cheer, and as time went on, I'd wave my hat to the wife and husband too, so that they generally used to come out, when they heard me coming up or down; and more than once mine has been an anxious journey when I passed there, and all has been quiet,

for I've thought that perhaps the Indians had been down, which would have meant murder and fire; but somehow I never had that to trouble me, for the next time I'd pass there would be some one at the door, or in the strawberry patch in front.

We got to be such friends at last, that I used to buy candy and dough-nuts, and heave them into the garden as I went by, for the children to scramble after, and that's what it was that did it, and this is how it was.

We were going comfortably along one afternoon, till, as we got near the clearing where my friends, as I called them, were located, I began to feel in my pockets for a couple of papers of something that I'd got, when my stoker said: "Hollo! what's that on the line?"

"Cow?" said I.

"Cow; no," he said; "why — why — it's three children!"

"Sound the ——" I did not stop to finish, but opened the little valve myself, making the still afternoon air quiver with the hollow booming roar it sent far and wide.

"That's moved them," said my stoker, laughing to see the little distant figures scamper away.

"I thought it would," I said; and then with my hand on the valve, I made the thing scream and roar again, for there was one of the little ones still right in the middle of the track.

In a moment I'd forgotten all about the stuff in the papers, for a curious sort of feeling came over me, one that for a few moments took all the nerve from my limbs, so that I could not move; and then, instead of reversing the engine, I began to creep forward; while, as if from the same feeling, my stoker stood staring with all his might right at the poor child.

We were too near for it to have done any good, even if we had both done our parts, and it was with a groan seeming to force itself out of my breast, that I told myself it was through my encouraging the poor children with presents that this was going to happen, for there, seeing no danger, was a little bright-eyed, long-haired thing dancing about and waving its hands as we came swiftly on.

It takes me some time to tell it, but it only took a few moments: and there it all is now like a picture that having once seen I can never forget. It was a glorious sunshiny afternoon, with all looking bright: the hut, with its patch of flowers: the children by the side of the line, and their mother running out wild and frantic-like, but only to drop down in the track, half-way between the door and where her little one was dancing and waving its little hands as we glided on.

I felt like a man does in one of those nightmare dreams, when the will is there to do something, only a dreadful kind of fear holds you back, and you can see danger coming nearer and nearer, and yet not avoid it. We neither of us spoke, but stood there, one on each side, leaning forward as helpless as the poor little child in front, till, with almost a yell, I fought clear of the power that seemed to hold me, and with the feeling on me that I was too late, I crept along the side of the engine, and lay down with my arms extended in front of the cow-catcher.

Only moments, but moments that seemed like hours, as with its strange, hurrying, jumping motion, the engine dashed down, as I told myself, to crush out the life of that poor little innocent. I wanted to shut my eyes to keep out the horrible sight, but I dared not; and though now I seemed to be doing what might save

the child's life, I could not think it possible. There it was, just in front, and yet we appeared to come no nearer.

Twenty yards—ten yards—were we never going to pass over the spot? or would some miraculous power stop the engine? I tried to shout, but only a curious hoarse noise came from my throat; I wanted to wave my hands, but they remained stretched out obstinately towards the child.

Five yards—four—three. There was the little thing laughing in its innocent glee, for it was expecting some little present from me, who was then calling myself its murderer, and lay there motionless as a statue.

Two yards—one—at last all over. There was a shock as we dashed down upon the little thing, who seemed to stretch out its hands to mine, and to leap, actually jump, into my arms, and then, with it tightly grasped, we were still going on and on; I with my eyes shut, but feeling that I had the child tightly held to my breast, and yet not able to look to see if it was hurt.

Then I don't know how it was, but I believe I must have got up, and crawled back to my place by the stoker; but I don't know, I can't recollect doing it, only finding myself sitting down there, holding the frightened little child in my arms, and feeling stunned and helpless as a child myself.

"What am I doing?" I said at last, for my stoker had spoken to me. "Why, I'm crying," I said; and so I was, crying like some great girl.

We dared not stop to take the little thing back, but we sent it from the next station; and you'll believe me when I tell you, that we were better friends afterwards than ever, so that for long enough we used to make

signals, I to the folks at the cottage, and they to me ; but I shall never forget that little one getting out upon the line. *'Chambers' Journal.'*

Billet.—A bundle or fagot of wood.

Shanty.—A house rudely constructed of logs.

Located.—Resident. "Located" is an Americanism ; i.e. an expression peculiar to Americans. It should not be used by English children.

LESSON II.

ENCOUNTER WITH ARABS ON THE JORDAN.

Part I.

ONCE more alone, the interest and excitement were strung up to the highest pitch. It was not like the Ateibeh morass, where my tent was on shore, and I had only to get back to it. Here, on the Jordan, the stream was far too powerful to think of returning against it ; and where, indeed, could I come back to ?

The interest arose from the hope of discovering the real course of the Jordan.

Suppose we had ten miles of the Thames still uncertain in our maps, would it not be a reproach to English boatmen ? But Jordan was an old river before the Thames was heard of, and the Thames will be forgotten when Jordan will be remembered for ever. What an honour then for the Rob Roy to trace even one new bend of this ancient river !

As the Hooleh Arabs seemed to be an ill-looking set, and had but a poor certificate of character, from the tales of travellers, I tried to slip by them unperceived under the high banks, and this was the first

place in my voyages where the natives were to be eluded.

On the Abana the difficult parts for the canoe were in deep rocky defiles, where no man, friend or foe, could come along the banks; but here, on Jordan, the banks were level, and open to the prowling robbers. Moreover, I was to meet them, if at all, without the constraining pomp and presence of a retinue, and, once captured, I should be lawful prize for a ransom.

No one caught sight of the canoe as she stole past the mat houses of Absees under a few palm-trees. Then the river wound very crookedly, but with steep banks and jungle concealing me. The bends were so angular and the current so swift that in the turns it was utterly impossible not to run into the thick overhanging canes. Then it was I invented a new way of getting round sharp serpentine corners, and which I beg to commend very warmly to canoeists.

Run the bows of the canoe gently into the left bank at the first angle, and let the stern be swung by the current until you can back into the right bank of the next angle, and run the stern in there. Let the current again swing the bow until you can paddle ahead in freedom, and so escape from the double bend.

It will be found that the eddies are all in favour of this plan, and the jungle in the bends is an aid rather than hindrance; but the operation requires quiet attention and good balancing, especially when steering back foremost; and a good look-out must be kept, lest in the narrow parts of the stream both bow and stern might be caught at once, when an upset would be a moral certainty.

This new movement of the canoe I called "waltzing," the Rob Roy being my fair partner; and as we were

whirling about in this dance without music, I saw a head gazing over the reeds in amazement. His eyes opened large, up went his hands, and he disappeared with a yell. Soon I heard others shouting, and soon—too soon—they all ran near to see. In a moment I noticed how very different they were in manner from any other spectators that so often had run alongside me in Europe and America. They were dancing in frantic excitement and shouting ferociously. The bounding current bore me along too fast for their running, but while I had to go round the long bends, they crossed by shorter routes, and saluted my approach with a volley of clods. All these fell harmless, and at the next bend the Hasbany River ran into the Banias; so the men were left at the point of junction, high on the steep bank, screaming until I disappeared.

The Hasbany joins the Banias in a proper orthodox way, each river yielding its tribute quietly to the united whole, and now for the first time is formed the veritable Jordan. Vandeveldt marks this spot near Tell Sheikh Yusuf, "the Mount of the lord Joseph"; and he is quite right, for there was the green hill close by the shore, the junction of the geographical and the historic streams of Jordan, the wedding of the line of largest waters with the line of largest fame. Here I intended to land and take bearings, but the banks were perfectly steep. However, in the middle there was a beautiful island of small round black gravel, and I ran the boat on that and got out to rest, to collect my thoughts as to the new complexion things had taken, to prepare my pistol, and settle whether it was better to lie concealed for an hour, or to push on swiftly and try to outrun the wave of excitement which had evidently arisen, and would quickly propagate itself among the

Arabs in the fields. Each of the rivers here seems to be about seventy feet wide, and seven or eight feet deep. The waters of both were pale brown in colour, and their united stream was about a hundred feet broad.

Launching again on the river, the current bore us on delightfully. The banks were from twelve to twenty feet high and quite vertical, with grass upon the top. Two buffaloes looked at me over this, and soon their driver too. I gave him a most polite "salaam!" but he stared as if he saw a ghost—and a most terrible ghost too—then he ran away hallooing.

With all my might I pressed on now, but soon heard the men behind me. In a straight reach, and with a good current like this, they could not keep up with the canoe. But here these pursuers cut across the bends on shore, and so they overtook me in ten minutes. Then a dozen of them were running high above, and they speedily increased to fifty—men, women, and children.

It was of no use now to paddle fast, but better to reserve my strength and keep cool for what might come. Suddenly every one of them disappeared, but I knew I must meet them all round the next corner. There they were, screaming, with that wild hoarseness only the Arab can attain, "Al burra! al burra!" (To land! to land!). That was the chorus, and a royal salute of missiles splashed in the water. I bowed to them quietly, and answered, "Ingleez;" but they ran still with me in a tumultuous rabble, and seeing some of them give their scanty garments to the others, I knew what would follow; about half a dozen jumped into the water.

They swam splendidly, and always with right and

left hand alternately in front ; but of course I distanced the swimmers, who murmured deep, while the others shouted and laughed. Then the naked ones got out and ran along the bank again, and all disappeared as before for another attack.

It was a crisis now ; but as there was no shirking it, the Rob Roy whirled round the next point beautifully ; and here the river was wide, and the rascals were waiting in the water, all in a line across, about a score of them wading to their middle.

For a moment I paused as to what was best to do, and everyone was silent and stood still. Then I quietly floated near one of the swimmers, splashed him in the face with my paddle, and instantly escaped through the interval with a few vigorous strokes, while a shout of general applause came from the bank ; and they all ran on except one, who took a magnificent "header" into the river, and came up exactly by the stern of the Rob Roy, with his arm over her deck. But my paddle was under his arm in an instant, and I gently levered him off, saying, in my softest accents, "Katerhayrac !" (Thanks !), as if he had been rendering a service. The shout renewed, and the best of them all retired discomfited.

Defile.—A narrow gorge.

Retinue.—A train ; e. g. The retinue of the king followed him.

Orthodox.—Correct. Properly, "Orthodox" means "holding right opinions ;" e. g. His views were perfectly orthodox.

Propagate.—Spread ; e. g. The plant was propagated far and wide.

Vertical.—Upright, perpendicular to the surface of standing-water.

Crisis.—Turning-point in affairs ; e. g. The affairs of Turkey had reached a crisis.

LESSON III.

ENCOUNTER WITH ARABS ON THE JORDAN.

Part II.

At this time we must have been quite near the village of Salhyeh (a name I can never forget), and the number of people on the banks was now at the least a hundred. Many of them had ox-goats, some had spears, the rest had the long clubs with huge round knobs at the end peculiar to that northern district. Another shower of missiles came, yet, strange to say, not one hit the boat. There rose the cry, "Baroda! baroda!" (the gun! the gun!).

I let my boat float quietly that the excitement might cool down, and, looking at the mob quite close, I saw several point their long guns at me; one kneeled to do so, yet none of them at first seemed really in earnest to shoot.

But soon on a little point in front I noticed a man posted methodically for a purpose. He trimmed his priming, he cocked his hammer, and, as I came straight up to him, every other person stopped to look, and not a voice was heard.

I could not escape this man, and he knew that well. Up went his gun to his shoulder: he was cool, and so was I. The muzzle was not twenty feet from my face. Three thoughts coursed through my brain: "Will hit me in the mouth; bad to lie wounded here." "Aimed from his left shoulder; how convenient to shoot on both sides!" "No use 'bobbing' here—first time under fire—Arabs respect courage." The clear round black of the muzzle end followed me covering* as I

* Covering, i. e. keeping me in the line of vision. A gun is said to "cover" the object towards which it is directed.

passed. I stared right at the man's eyes, and gave one powerful stroke; at the same moment he fired—fiz, bang! and a splash of the bullet in the water behind me. Loud shouts came out of the smoke. I stopped, and said, "Not fair to use a gun!" In an instant the water was full of naked swimmers straining towards me. It was shallow here, and in vain I tried hard to avoid them. Suddenly my canoe was wrenched down behind. It was the same black giant I had elbowed off before; but now he came furiously, brandishing the white shank-bone of a buffalo. I ward off that with my paddle, but another had got hold of the boat's bow. I was captured now, and must resort to tactics. The crowd yelled louder in triumph, but I motioned my captors to take the boat to the opposite shore. The man cried "Bakshish!"—a word I had somehow heard before! I said, "Yes; but to the sheikh." The villain answered, "*I am the sheikh*;" but I knew he was not. His face was black, his cheeks were deeply gashed and tattooed; he had one big earring. His topknot stood erect, and the water glistened on his huge naked carcase as he roughly grasped my delicate little paddle. My pistol lay between my knees full cocked, and my hand stole down to it. Better thoughts came instantly. "Why should I shoot this poor savage? it will not free me. Even if it does, it would be liberty bought by blood." Still I parleyed with the man till he softened down. I pointed to his bone weapon, and said it was not fair to use it. He pointed to my paddle, and said that was not fair. Poor fellow! I felt for him; his vanity had been wounded by discomfiture before. Soon we became good friends, chiefly by my quiet smiles and patting his wet shaven pate.

I kept him yet on the far side of the river, that the others might sober a little, for the Arabs quiet into

calm as suddenly as they flash into rage. All the village was out now on the banks, and many swam over to the Rob Roy. I formally appointed my captor as my protector, and he became proud instead of angry. Little as I knew of the language, I could make him understand my meaning, and he *did* understand—nay, there is scarcely any idea of *facts* that you cannot make intelligible without words if you are at once calm and in earnest. Then we crossed—he swimming and holding on with excruciating twists to the poor prisoned Rob Roy. How frantic the people were! Some of them in the crowd tumbled over into the water. They did not mind that a bit. I commanded silence, and all obeyed. Then was pronounced this most eloquent oration. I said, "I am English." They replied, "Sowa, sowa" (friends), and then rubbed their two forefingers together, the usual sign of amity. I said it was not fair to use the "baroda" (gun). Holding up one finger, I said, "Ingleez wahed" (one Englishman), then holding up both hands, I said, "Araby kooloo" (all the rest Arabs). At this the crowd applauded, laughing, and so did I. A little girl now took up a huge lump of red earth, and from the bank, about eight feet above me, she hurled it down with violence upon the canoe. This was a crisis, and the time to be perfectly calm. If the quick spirit had seized them then, the boat would have been smashed to pieces in three seconds. Turning, therefore, slowly round, I pointed to the horrid mess the mud had made on the clean white waterproof of the canoe, and looked up in the faces of them all with a pleasant but beseeching air. It was a turning point this. They looked at one another for a moment silently, and then, as by a general impulse, they rushed at the hapless girl, and as the

whole mob of them disappeared over the bank, I heard her screams and the thumps of discipline that caused them. In the confusion caused by this absence I had almost escaped once more, when they angrily captured me again. But they could not persuade me to get out of the boat, and for this reason: my pistol was still open and at full cock lying on the floor boards of the canoe. If I got out, they would see it, and surely would scramble for the prize. Every time I put my hand inside to stow the pistol away out of sight, they tried to wrench my paddle from the other hand. One hand was, therefore, needed for the paddle, but the other could not be spared from its duty of patting their wet greasy heads, which affectionate caress seemed to be an unwonted but most successful mode of propitiation.

The water mob of swimmers closed nearer and waxed larger as more crossed the river. Their curiosity was boundless, and every hand tried to undo my apron or to get somehow under the deck. Their patience was on the ebb, and while I considered what to do next, I felt the Rob Roy heaving this way and that, and then gradually, and despite all my smiling but earnest remonstrance, the canoe began to rise out of the water with all her crew inside. Loud shouts welcomed her ascent up the bank as a dozen dark-skinned bearers lifted the canoe and her captain, sitting inside, with all due dignity graciously smiling, and so they carried her fairly up the steep bank and over the smooth sward some hundred yards towards the tent of their Arab sheikh.

But it was an anxious journey this from river to tent. The men were rough and boisterous. The boat heeled and plunged as if in a terrible sea. I clasped the two

nearest bearers round their necks to steady these surgings. Then they let the boat down while I clung to their clammy cheeks and swarthy shoulders, and I had soon to loose hold of these and descend to the ground with the Rob Roy, for I would never desert her. Up aloft again! and laughing and shouting we waddled along, while the crowd was denser than ever, until the sheikh came slowly to meet us with a few of his ancient councillors.

I insisted that the canoe should be placed in his tent. After much resistance he suddenly allowed it, and then I got out. But what to do next? The first thing to recollect in this sort of adventure is that *time* is of no consequence to such people, but that stage effect and dignity are very important to your case. Therefore I made long preliminaries, and had every person ordered out of the tent. The crowd obeyed, after some had been beaten with sticks to convince them. The sheikh seemed puzzled at the whole affair. I looked at him carefully, and saw he was a second-rate man without much decision in his mien, and one who would, on the whole, like events to happen under other orders than his own.

Having now a fair stage scene around the central figures, I came forward slowly, hat in hand, and bowed to the sheikh very low, and shook hands with him heartily, and told him I was a wandering Briton on my way to the lake, and I would rest at his tent until the sun was cooler.

The crowd was attentive and silent. Men in the rear beat off the boys, and the women went behind the tent and peered through the matting, so that a whole regiment of feminine noses was ranged over the little Rob Roy, now reclining safe on a carpet. The sheikh retired to consult with his Cabinet. I asked for two

men to keep order, and he gave them, and desperately tyrannical they were upon the mob. After an hour, about mid-day, the chief and his ministry came back, and ordered "silence," and said, "You cannot go to the lake." I said, "I *must*." He answered it was "impossible." I said I must go to see that. He gave me the very smallest wink that could be given by a man's eye, and I answered by one a little smaller. Then I knew he could be convinced—i. e. bribed, and so finally, at any rate, I should have my own way.

The tent was cleared again. About twenty women came forward in a group, and the sheikh's wife, quite refined in manner and very intelligent. I behaved to her as if she were an English lady. She was lost in amazement when I exhibited my little bed, my lamp, compass, and cuisine.* She looked with kind and feminine interest upon me when I said I was losing all the fine sunshine of the day a prisoner alone among strangers. She fetched her husband by himself, and, under cover of showing him the inside of the canoe, I managed to let him see a gold napoleon in my open hand, and with a nudge to his elbow for emphasis to the sight. He whispered, "Shwei, shwei" (softly, quietly). I knew I had bought him then. The "council of ancients" came with their final decision, "You cannot go to-day, but must have a horse to-morrow. There are reeds (Rab) quite impassable." I explained how the canoe went through reeds in the lake of Hijaneh. "Yes," they answered, "but there is water in Hijaneh, now here the reeds are so," and they placed a sort of hedge of sticks at the bow of my canoe to explain.

I then began to amuse them by making sketches of

* Cuisine, arrangements for cooking. French, *cuire*, to cook. Pronounce *cweeseen*.

men and horses, next I gave a lesson in geography by placing nutshells at various points to represent "Sham" (Damascus), Musr (Cairo), El Khuds (Jerusalem), and Bahr (the lake of Hooleh), and at last placed one little shell at the extreme end of the tent to represent England so far away. They exclaimed loudly in astonishment at my long journey to see them. At intervals several of these men kept boring me for "bakshish." One was an old deaf cunning fellow, who whispered the word in my ear. Another, a sharp lad, who said he had seen the "Ingleez" at Beyrout, spoke incessantly to me by signs only, and he did it admirably. I was much interested in the clever variations of his noiseless pictures, always culminating in the same subject, "bakshish." A third applicant used no such delicate coyness in the matter, but merely roared out the hateful word before all, and louder every time.

No one had as yet offered me any food. This gross neglect (never without meaning among the Arabs) I determined now to expose, and so to test their real intentions. My cuisine was soon rigged up for cooking, and I asked for cold water. In two minutes afterwards the brave little lamp was steaming away at high pressure with its merry hissing sound. Everyone came to see this. I cut thin slices of the preserved beef soup, and, while they were boiling, I opened my salt-cellar. This is a snuff-box, and from it I offered a pinch to the Sheikh. He had never before seen salt so white, and therefore, thinking it was sugar, he willingly took some from my hand and put it to his tongue. Instantly I ate up the rest of the salt, and with a loud, laughing shout, I administered to the astonished outwitted sheikh a manifest thump on the back. "What is it?" all asked from him. "Is it sukker?" He answered demurely,

"La ! meleh !" (No, it's salt !) Even his Home Secretary laughed at his chief. We had now eaten salt together, and in his own tent, and so he was bound by the strongest tie, and he knew it.

The soup was now ready and boiling hot. They all examined my little metal spoon, and my carving-knife went round (it never came back). I gave everyone of them seated in a circle about me one spoonful of the boiling soup, which, of course, scalded each man's mouth, and made him wince bitterly, yet without telling the next victim. Now they had all partaken of food with their prisoner. How much they relished it, I don't know. All went out, and I took this opportunity to stand near the sheikh, and try to slip the napoleon into his hand. He was quite uncertain what to do when the gold tickled his palm. It was utterly against their code of chief and people for him to take this secret personal gift from a stranger, yet he could not resist the temptation. His hand pushed mine away, but with a very gentle indignation. Soon his fingers played among mine as the yellow coin kept turning about, half held by each of us, unseen behind our backs. Two of the sheikh's fingers were pushing it away, but then the other three fingers were pulling it in. Finally I felt the coin had left me, and I knew now the sheikh was not only bought but *paid for*. Down went his countenance from that moment, and he slunk away abashed. An hour more of palaver was spent by the seniors, during which time I ate my luncheon hastily and read the 'Times.' Then all came back once more except the chief, and the women were rustling behind the mat screens, and a great bustle seemed to say that the verdict was agreed upon. The "foreman" briefly told it—"You are to go to-morrow."

This would never do—but how to reverse the sentence? I was seated on the ground at the time, and I rose very slowly and gravely, until, standing on a little eminence in the tent, and drawing myself up besides as tall as could be, and stretching up my hand as high as possible (and utterly undetermined what I was going to say, and exceedingly tempted to burst into laughter), I exclaimed with my loudest voice only three words, Bokra?—La!—Ingleez! (To-morrow?—No!—I am English!) and then the orator sank calmly down and went on reading his paper again. In five minutes more a man came to say I might leave at once. But I was not to be shoved off in this way, so I insisted that they must carry my canoe back to the river. The procession, therefore, formed again, with the Rob Roy in the centre, and her captain walking behind, while boys and girls, and especially the people who had not already seen her on the water, all rushed in a crowd to the bank with the same hoarse shouts they had given before, and which we were now more accustomed to hear. All parties pledged their friendship in deep “salaams” of adieu, and we paddled off, rejoicing.

J. MACGREGOR.

Missile.—A weapon for throwing. *Lat. mitto*, I send; e. g.

Javelins and other missiles were thrown at us.

Tactics.—Strategies, carefully laid plans; e. g. His tactics were successful.

Bakshish.—An Arabic word, meaning money.

Discomfiture.—Defeat.

Excruciating.—Exceedingly painful, inflicting tortures.

Propitiate.—To appease, to secure the friendship of a person previously hostile or angry; e. g. He tried to propitiate us.

Preliminaries.—Arrangements in anticipation of something else; e. g. All the preliminaries of the marriage are now settled.

Culminate.—To reach the highest point. *Lat. culmen*, the top; e.g. His offences at last reached a culminating point, which compelled us to dismiss him.

Demurely.—Gravely, solemnly.

Palaver.—Talk, negotiation.

Salaam.—An Oriental mode of salutation.

LESSON IV.

THE BATTLE OF FLODDEN FIELD.

NEXT morn the baron climbed the tower,
To view afar the Scottish power,
 Encamped on Flodden edge:
The white pavilions made a show,
Like remnants of the winter snow,
 Along the dusky ridge.
Long Marmion looked :—at length his eye
Unusual movement might descry
 Amid the shifting lines:
The Scottish host drawn out appears,
For, flashing on the edge of spears,
 The eastern sunbeam shines.
Their front now deepening, now extending,
Their flank inclining, wheeling, bending,
Now drawing back, and now descending,
The skilful Marmion well could know
They watched the motion of some foe,
Who traversed on the plain below.
Even so it was :—From Flodden ridge
 The Scots beheld the English host
 Leave Barmore-wood, their evening post,
 And heedful watched them as they crossed
The Till by Twisel Bridge.
High sight it is, and haughty, while
They dive into the deep defile:
Beneath the caverned cliff they fall,
Beneath the castle's airy wall.

By rock, by oak, by hawthorn tree
Troop after troop are disappearing ;
Troop after troop their banners rearing
Upon the eastern bank you see.

Still pouring down the rocky den,
Where flows the sullen Till,
And rising from the dim wood glen,
Standards on standards, men on men,
In slow succession still,
And sweeping o'er the Gothic arch,
And pressing on, in ceaseless march,
To gain the opposing hill.
That morn, to many a trumpet-clang,
Twisel ! thy rocks' deep echo rang ;
And many a chief of birth and rank,
St. Helen ! at thy fountain drank.
Thy hawthorn glade, which now we see,
In spring-tide bloom so lavishly,
Had then from many an axe its doom
To give the marching columns room.

And why stands Scotland idly now,
Dark Flodden ! on thy airy brow,
Since England gains the pass the while,
And struggles through the deep defile ?
What checks the fiery soul of James ?
Why sits that champion of the dames
Inactive on his steed,
And sees, between him and his land,
Between him and Tweed's southern strand,
His host Lord Surrey lead ?
What 'vails the vain knight-errant's brand !—
O Douglas, for thy leading wand !
Fierce Randolph, for thy speed !
O for one hour of Wallace wight,
Or well-skilled Bruce, to rule the fight,
And cry—" Saint Andrew and our right !"
Another sight had seen that morn,
From fate's dark book a leaf been torn,

And Flodden had been Bannockburn!—
The precious hour has passed in vain,
And England's host has gained the plain;
Wheeling their march, and circling still,
Around the base of Flodden-hill.

“But, see! look up—on Flodden bent,
The Scottish foe has fired his tent,”

And sudden, as he spoke,
From the sharp ridges of the hill,
All downward to the banks of Till,
Was wreathed in sable smoke;
Volumed, and vast, and rolling far,
The cloud enveloped Scotland's war,
As down the hill they broke;
Nor martial shout, nor minstrel tone,
Announced their march; their tread alone,
At times one warning trumpet blown,
At times a stifled hum,
Told England, from his mountain throne
King James did rushing come.—

At length the freshening western blast
Aside the shroud of battle cast;
And, first, the ridge of mingled spears
Above the brightening cloud appears;
And in the smoke the pennons flew,
As in the storm the white sea-mew.
Then marked they, dashing broad and far,
The broken billows of the war,
And plumed crest of chieftains brave
Floating like foam upon the wave.

But nought distinct they see;
Wide raged the battle on the plain;
Spears shook and falchions flashed amain;
Fell England's arrow flight like rain;
Crests rose, and stooped, and rose again,
Wild and disorderly.

Amid the scene of tumult high
They saw Lord Marmion's falcon fly:

And stainless Tunstall's banner white,
And Edmund Howard's lion bright,
Still bear them bravely in the fight :

 Although against them come
Of gallant Gordons many a one,
And many a stubborn Badenoch-man,
And many a rugged border clan,
 With Huntly and with Home.

Far on the left, unseen the while,
Stanley broke Lennox and Argyle ;
Though there the western mountaineer
Rushed with bare bosom on the spear,
And flung the feeble targe aside,
And with both hands the broadsword plied :
'Twas vain :—But fortune, on the right,
With fickle smile, cheered Scotland's fight.
Then fell that spotless banner white,—

 The Howard's lion fell ;
Yet still Lord Marmion's falcon flew
With wavering flight, while fiercer grew
 Around the battle yell.

The border slogan rent the sky !
A Home ! a Gordon ! was the cry ;
 Loud were the clanging blows :
Advanced,—forced back,—now low, now high,
 The pennon sunk and rose ;
As bends the bark's mast in the gale,
When rent are rigging, shrouds, and sail,
 It wavered 'mid the foes.

And now upon the darkening heath
More desperate grew the strife of death.
The English shafts in volleys hailed,
In headlong charge their horse assailed ;
Front, flank, and rear, the squadrons sweep,
To break the Scottish circle deep,
 That fought around their king.
But yet, though thick the shafts as snow,
Though charging knights like whirlwinds go,

Though bill-men ply the ghastly blow,
Unbroken was the ring ;
The stubborn spearmen still made good
Their dark impenetrable wood,
Each stepping where his comrade stood,
The instant that he fell.
No thought was there of dastard flight ;—
Linked in the serried phalanx tight,
Groom fought like noble, squire like knight,
As fearlessly and well ;
Till utter darkness closed her wing
O'er their thin host and wounded king.
Then skilful Surrey's sage commands
Led back from strife his shattered bands :
And from the charge they drew,
As mountain-waves, from wasted lauds,
Sweep back to ocean blue.

Then did their loss his foemen know ;
Their king, their lords, their mightiest, low,—
They melted from the field as snow,
When streams are swoln and south winds blow,
Dissolves in silent dew.
Tweed's echoes heard the ceaseless plash,
While many a broken band,
Disordered, through her currents dash,
To gain the Scottish land ;
To town and tower, to down and dale,
To tell red Flodden's dismal tale,
And raise the universal wail.
Tradition, legend, tune, and song,
Shall many an age that wail prolong ;
Still from the sire the son shall hear
Of the stern strife and carnage drear
Of Flodden's fatal field,
Where shivered was fair Scotland's spear,
And broken was her shield !

Day dawns upon the mountain-side :—
There, Scotland ! lay thy bravest pride,—

Chiefs, knights, and nobles, many a one,—
 The sad survivors all are gone.—
 View not that corpse distrustfully,
 Defaced and mangled though it be;
 Nor to yon border castle high
 Look northward with upbraiding eye;
 Nor cherish hope in vain,
 That journeying far on foreign strand,
 The royal pilgrim to his land
 May yet return again.
 He saw the wreck his rashness wrought;
 Reckless of life, he desperate fought,
 And fell on Flodden plain:
 And well in death his trusty brand,
 Firm clenched within his manly hand,
 Beseemed the monarch slain.

SIR WALTER SCOTT.

Pavilion.—Tent.

Lavishly.—Profusely; e.g. He gave away his money most lavishly.

Wallace wight.—The hero Wallace. "Wight" is properly a person. The word is now used somewhat contemptuously.

Amain.—Vigorously. Compare "with might and main."

Slogan.—A battle-cry.

Serried.—Closely arranged, compact.

Phalanx.—A solid body of troops arranged so as to resist attack.

Carnage.—Bloodshed, slaughter. *Lat. caro, flesh.*

Beseem.—To befit; e.g. It ill-beseemed him to speak slightly of his former benefactor.

LESSON V.

DISCOVERY OF THE PACIFIC OCEAN.

VASCO NUNEZ resolved, therefore, to be the discoverer of that sea, and of those rich lands to which Comogre's son had pointed, when, after rebuking the Spaniards for their "brabbling" about the division of the gold,

he turned his face towards the south. In the peril which so closely impended over Vasco Nunez, there was no use in waiting for reinforcements from Spain : when those reinforcements should come, his dismissal would come too. Accordingly, early in September, 1513, he set out on his renowned expedition for finding "the other sea," accompanied by a hundred and ninety men well armed, and by dogs, which were of more avail than men, and by Indian slaves to carry the burthens.

Following Poncha's guide, Vasco Nunez and his men commenced the ascent of the mountains, until he entered the country of an Indian chief called Quarequa, whom they found fully prepared to resist them. The brave Indian advanced at the head of his troops, intending to make a vigorous attack ; but they could not withstand the discharge of the fire-arms. Indeed, they believed the Spaniards to have thunder and lightning in their hands—not an unreasonable fancy—and, flying in the utmost terror from the place of battle, a total route ensued. The route was a bloody one, and is described by an author, who gained his information from those who were present at it, as a scene to remind one of the shambles. The king and his principal men were slain, to the number of six hundred.

Speaking of these people, Peter Martyr makes mention of the sweetness of their language, saying that all the words in it might be written in Latin letters, as was also to be remarked in that of the inhabitants of Hispaniola. This writer also mentions, and there is reason for thinking that he was correctly informed, that there was a region, not two days' journey from Quarequa's territory, in which Vasco

Nunez found a race of black men, who were conjectured to have come from Africa, and to have been shipwrecked on this coast. Leaving several of his men, who were ill, or over-weary, in Quarequa's chief town, and taking with him guides from this country, the Spanish commander pursued his way up the most lofty sierras there, until, on the 25th of September, 1513, he came near the top of a mountain from whence the South Sea was visible. The distance from Poncha's chief town to this point was forty leagues, reckoned then six days' journey, but Vasco Nunez and his men took twenty-five days to accomplish it, as they suffered much from the roughness of the ways and from the want of provisions.

A little before Vasco Nunez reached the height, Quarequa's Indians informed him of his near approach to the sea. It was a sight in beholding which for the first time any man would wish to be alone. Vasco Nunez bade his men sit down while he ascended, and then, in solitude, looked down upon the vast Pacific—the first man of the Old World, so far as we know, who had done so. Falling on his knees, he gave thanks to God for the favour shown to him, in his being permitted to discover the sea of the South. Then with his hand he beckoned to his men to come up. When they had come, both he and they knelt down, and poured forth their thanks to God.

He then addressed them in these words:—"You see here, gentlemen and children mine, how our desires are being accomplished, and the end of our labours. Of that we ought to be certain; for, as it has turned out true, what King Comogre's son told of this sea to us, who never thought to see it, so I hold for certain that what he told us of there being incomparable treasures

in it will be fulfilled. God and His Blessed Mother,* who have assisted us, so that we should arrive here and behold this sea, will favour us, that we may enjoy all that there is in it." Afterward, they all devoutly sang the "Te Deum Laudamus"; † and a list was drawn up by a notary, of those who were present at this discovery, which was made upon St. Martin's day.

Every great and original action has a prospective greatness—not alone from the thought of the man who achieves it, but from the various aspects and high thoughts which the same action will continue to present and call up in the minds of others, to the end, it may be, of all time. And so a remarkable event may go on acquiring more and more significance. In this case, our knowledge that the Pacific, which Vasco Nunez then beheld, occupies more than one-half of the earth's surface, is an element of thought which in our minds lightens up and gives an awe to this first gaze of his upon those mighty waters.

Having thus addressed his men, Vasco Nunez proceeded to take formal possession, on behalf of the kings of Castille, of the sea, and of all that was in it; and, in order to make memorials of the event, he cut down trees, formed crosses, and heaped up stones. He also inscribed the names of the monarchs of Castille upon great trees in the vicinity. SIR ARTHUR HELPS.

Reinforcements.—Additional troops.

Shambles.—A flesh-market. Hence a place running with blood.

Incomparable.—Admitting of no comparison; e. g. His beauty was incomparable.

* It will be remembered that Vasco Nunez and his companions were Roman Catholics.

† Te Deum Laudamus, a canticle, so called from the opening words of the Latin original. They mean "We praise Thee, God."

11

11

He knows it not, he cannot guess:
Years to a mother bring distress,
But do not make her love the less.

Neglect me! No, I suffer'd long
From that ill thought; and, being blind,
Said, "Pride shall help me in my wrong."
Kind mother have I been, as kind
As ever breathed, and that is true:
I've wet my path with tears like dew,
Weeping for him when no one knew.

My son, if thou be humbled, poor,
Hopeless of honour and of gain,
O, do not dread thy mother's door!
Think not of me with grief and pain!
I now can see with better eyes;
And worldly grandeur I despise,
And fortune with her gifts and lies.

Alas! the fowls of heaven have wings,
And blasts of heaven will aid their flight;
They mount—how short a voyage brings
The wanderers back to their delight!
Chains tie us down by land and sea;
And wishes, vain as mine may be
All that is left to comfort thee.

Perhaps some dungeon hears thee groan,
Maimed, mangled by inhuman men;
Or thou, upon a desert thrown,
Inhabitest the lion's den;
Or hast been summoned to the deep,
Thou, thou, and all thy mates, to keep
An incommunicable sleep.

I look for ghosts, but none will force
Their way to me; 'tis falsely said
That there was ever intercourse
Between the living and the dead:
For surely then I should have sight
Of him I wait for day and night,
With love and longings infinite.

My apprehensions come in crowds;
 I dread the rustling of the grass;
 The very shadows of the clouds
 Have power to shake me as they pass;
 I question things, and do not find
 One that will answer to my mind,
 And all the world appears unkind.

Beyond participation lie
 My troubles, and beyond relief;
 If any chance to heave a sigh,
 They pity me, and not my grief.
 Then come to me, my son, or send
 Some tidings, that my woes may end;
 I have no other earthly friend.

W. WORDSWORTH.

Undone.—Ruined.

Beguiled.—Deceived.

Prime.—The very first. *Lat. primus*, first.

Ingenuous.—Simple, natural, artless. Notice the difference in spelling between ingenious and ingenious.

Ensnue.—To follow; e. g. What ensued I need not mention.

Incommunicable.—Admitting of no communication.

Apprehensions.—Fears, anxieties.

Participation.—The capability of being shared.

LESSON VII.

FROM PARIS TO NORWAY IN FOURTEEN HOURS.

A BALLOON VOYAGE DURING THE SIEGE OF PARIS.

Not the least interesting among the many exciting incidents of the Franco-Prussian war, were the marvellous adventures and hair-breadth escapes of the bold aeronauts who tried, at the risk of their lives, to carry letters and despatches from Paris to the provinces of France. But of all these wonderful journeys through

the air by far the most marvellous was that accomplished by the balloon 'La Ville d'Orléans,' which left Paris on 24th November, 1870, bearing important despatches from General Trochu to the army of the Loire. Violent winds wafted it in fourteen hours to Norway. The extraordinary adventure of this voyage, though perfectly true, seems like a story out of the 'Arabian Nights.' The following narrative addressed by a soldier, who was one of the party, to his commander, and published in a French newspaper at the time, gives a graphic account of this adventurous journey:—

"The departure took place from the Northern Railway terminus at 11.40 P.M.; the balloon was under the guidance of M. Rolier, an aeronaut. I carried some provisions, which, at an extremity, might last us for twenty-four hours, and the despatches of the Government. We had, moreover, a cage containing six carrier-pigeons, about 250 kilogrammes of private despatches, and ten bags of ballast.

"Midnight.—We had started with a moderate breeze from the S.S.E., making consequently towards the N.N.W.; that is to say, nearly in the direction of St. Valéry-sur-Somme. The balloon, which had risen to a height of 800 mètres, was beginning to descend; we were obliged to sacrifice two bags and a half of sand to reach the height of from 1100 to 1200 mètres, at which distance we are out of reach of the Prussian balls. Some shots were fired at us, but without any result.

"12.30 A.M.—We have reached 1400 mètres: all is quiet; the night is extremely calm.

"1 A.M.—We are at 2700 mètres; we shall keep at this height till daylight.

"2.30 A.M.—Far below us is a thick fog, which com-

pletely hides from us the sight of the earth; a noise, which I can only compare to that of a railway train in motion, makes us think that we must be close to some railway line; but the noise continues till daylight, and completely absorbs our attention.

"6.15 A.M.—Day is beginning to dawn, the balloon has descended to a height of about 1400 mètres; we perceive no land on the horizon, and below us extends the sea! The sea for us is death! The constant noise which we thought was a railway train was that of the waves.

"6.30.—Lost in immensity, destitute of any instrument by which we can take our bearings and discover where we are, and the wind always driving us towards the north, we prepare a despatch for France—'6.30 A.M., above the open sea, seeing no coast; to the mercy of God.' We fasten this last adieu to one of our little pigeon messengers, but the fog getting thicker and thicker every minute obliges us to give up the plan; we sadly replace our pigeon in its wicker prison.

"11.30 A.M.—Always at the same height. Many ships pass in sight below us, but our signals and cries for assistance are useless. We had now descended much lower, and the aeronaut conceived the idea of letting our guide-rope hang down in its complete length, in the hope (a mad one) that a ship passing below us might be able to catch it and stop the balloon; we had not this chance, and we were obliged painfully to draw in our cable again.

"11.45 A.M.—A large ship in the east perceives us and fires a gun of distress.

11.55 A.M.—A schooner, the last that we were to meet on our voyage, signals to us; the crew were all upon deck, making signals and preparations to afford us help.

M. Rolier presses upon the handle which opens the valve; we rapidly descend to some few mètres above the level of the sea, and it is then only that we perceive the wild speed of our progress: the three minutes which it has taken us to descend have been enough to carry us more than eight kilomètres from the schooner. It is then that, understanding the impossibility of our being saved by a ship, we decide to ascend again, and as we have only got about two sacks and a half of sand left, which we must keep for a last effort, we determine to sacrifice a bag of private despatches, weighing about sixty kilogrammes. The balloon ascends again to about 3700 mètres.

"12.20 P.M.—An extremely thick mist envelopes us; we can scarcely distinguish our balloon above us; the lowness of the temperature is excessive, and we are suffering from the cold; our hair and moustaches, and especially our eyebrows, are small icicles; the hoar-frost falls in a continuous shower. I am obliged to sacrifice my wrapper to cover up and protect my poor pigeons.

"1 P.M.—The fog continues to get thicker, and the cold seems to become more intense every minute; it is now with a common accord that, believing ourselves absolutely lost, we take the resolution of blowing up the balloon. I do not pretend to justify this act of despair, or rather of weakness, but I must tell my story sincerely, and we did not desire to suffer too long. I gave one last thought to my absent country, to my wife, to my three little children, and the aeronaut tried several times to light the lucifer matches, but our clothes, the soles of our shoes, everything that he rubbed them against was so damp, that no match would light. I took a little more courage again, and we said to each other, 'God does not wish to abandon us.'

"2.20.—The balloon descends now with great rapidity; arrived at the height of about 30 mètres above the level of the sea, always in the fog, we perceive the top of a pine-tree emerging from a thick covering of snow; the parachute almost instantly afterwards touched the ground, and the aeronaut jumped out without losing a moment. I wished to do the same, but I caught my feet in the cords of the anchor and of the guide-rope, and I found myself hanging head downwards out of the parachute, and the balloon, lightened by so great a portion of its weight, ascended with extreme velocity. Fortunately for me M. Rolier was able to grasp and hold on to the guide-rope, which slackened the upward movement. I profited by this breathing-time to disengage myself, and we were both able to let ourselves fall from a height of about 20 to 25 mètres into a bed of freshly fallen snow, very soft and about a mètre in depth. We were saved, but we had lost our balloon and our poor pigeons.

"It was then Friday, 25th November, 1870, 2.25 in the afternoon; the place where we had effected our fortunate descent was called Mount Tid, quite in the north of Norway.

"We had just escaped miraculously from the perils of the air; the hand of God had been extended over us, but our present position did not offer a very consoling prospect. We found ourselves cast upon an unknown country, exposed to all the rigours of an icy climate, without food, almost without clothing, for the balloon had carried off in its wild course our pigeons, our despatches, our provisions, and our wrappers.

"After a short deliberation we decided to take a route towards the south. We must first gain the valleys, so, without any further delay, we began to descend the mountain; stumbling, slipping at every

step over frozen surfaces almost vertical, disappearing up to the chest in snow-drifts, clinging as well as we could to the pine-branches, it took us a time which appeared very long to us, but which was, perhaps, not more than half an hour, in this painful descent, till at last we found traces of sledges, which seemed to be recent: they appeared to go in a southern direction. We did not hesitate to follow them.

"After two hours of very difficult walking, sinking at each step deep into the snow, the ice breaking under our feet, our legs half disappearing in the little streams which were flowing under the latest beds of snow, we found ourselves quite at the end of our strength. We had seen, too—by no means an encouraging sight—three very large wolves about a hundred yards before us. We had, so far as weapons are concerned, only a small knife between us. We had not the slightest wish to cross their path, and with a sigh of relief we saw them disappear.

"M. Rolier, overcome by fatigue and cold, sank down upon the snow in a sort of lethargy, notwithstanding all my encouragements and all his efforts. It was impossible for him to go any further. At last, helping him as well as I could to take a few steps, I succeeded in leading him to the foot of a gigantic fir-tree, whose branches, loaded with an enormous weight of snow, descended to the ground. I was able to place him pretty well here in a sort of arm-chair, formed by two of the large lower branches; he was already fast asleep.

"Notwithstanding my extreme weariness, I thought I ought to resume my march to try to discover some habitation. After a long time of painful search I felt I must return; night was coming on, and the fog getting thicker and thicker every minute, forced me to retrace my steps, so with a heavy heart I turned back

again. I followed the traces of the sledge, carefully putting my feet one after the other in the rut, when by chance raising my eyes, I saw, scarcely thirty yards distant, a deserted hut. In an instant my fatigue disappeared, and I soon reached it; I was in the midst of my palace, and found it half filled with hay.

"To run to the fir-tree where Rolier was so fast asleep, to drag him from his arm-chair, to pass his arm round my neck, to draw him whether he would or not, and to throw him quite amazed into the hut, was my next work: it was quite time, his feet were almost frozen, and this numbness might soon lead to death.

"M. Rolier recovered now from this state of torpor; we actively set to work to clear the hay from the snow which had got through the roof; we found it quite hot under its frozen mantle. As soon as our bed was ready we hastened to barricade the door, or rather what remained of the door, with everything which we could lay our hands upon, and confident in the Divine protection which would preserve us from the visits of bears and wolves, we threw ourselves into the hay, where we buried ourselves up to our eyes, and found there, if not sleep, at least rest and warmth.

"Welcome sleep was a long time coming. I heard my neighbour's teeth chattering; a terrible nightmare shook his limbs, but he slept, and I dared not awake him. Notwithstanding all my efforts to suppress them, sad thoughts came to darken my troubled spirits. I always arrived at this fatal conclusion: had I not been saved from the terrible dangers of this extraordinary voyage in the air only to reach this frozen country to die of hunger and cold?

"At last I was able to sink into a feverish sleep, and I awoke about 6.30 A.M.; it was then the 26th of

November, scarcely more than thirty hours since we had quitted Paris.

"M. Rolier's strength had returned to him. After we had well shaken ourselves we resumed our march, leaving with a grateful glance the miserable shelter where we had found some warmth and a little refreshing sleep. The day was beginning to dawn, but on the horizon towards the north was shining still with an intense brilliancy the red light of a splendid aurora borealis. We had each been able to cut for ourselves a strong and long stick from one of the smaller branches of a pine-tree which had been thrown down by an avalanche or a storm. We walked painfully on through snow and ice, not quickly indeed, for our boots now began to be in a miserable state. We suffered terribly from hunger.

"Our strength was rapidly failing. We maintained a sad silence, and I began indeed to lose courage, when about 11 o'clock, raising my head, we both uttered a cry of joy. We had just perceived a poor cottage, a palace to us! It was empty, but in the interior everything announced that human beings had only recently quitted it."

'Chatterbox' for 1874.

Aeronaut.—A person who sails through the air by means of a balloon.

Graphic.—Vivid, picture-like.

Kilogramme = 1000 grams = 15,430 English grains = about 2½ English lbs.

Mètre = 39·3708 English inches. It is the ten-millionth part of a quarter of the terrestrial meridian.

Parachute.—A part of the balloon hanging down below.

Deliberation.—Consideration of what is to be done.

Barricade.—To fasten by heaping up materials across the entrance closed.

Aurora borealis.—A beautiful light often seen playing in the heavens in Arctic regions.

LESSON VIII.

SIR THOMAS MORE.

Part I.

THE Courts are met at Westminster,
And there, a numerous band,
With learned books, and keen quick looks,
The dark-robed lawyers stand.

"Room for the Chancellor!—make way,"
And, through the wide-roofed hall,
He comes with grave and formal state,
Observed, admired by all.

With thoughtful step he moves along,
That learned Chancellor ;
And many wish his lot were theirs,
And envy Thomas More,

The ready wit, the scholar keen,
The judge mature and sage,
Beloved by king and people both,
The foremost of his age.

All do him reverence as he goes—
But wherefore this delay ?
See! yonder is his chair of state,
And yet he turns away.

And why so humbly doth he kneel
That aged judge before ?
Better the judge should kneel to him,
The Lord High Chancellor.

See, bending lowly on the ground,
And humble reverence done,
"Bless me, O father," thus he cries ;
"Bless thine unworthy son."

"God's blessing on thy head, my son,
And may thy children be
To thee a comfort and a help,
As thou hast been to me."

A holy thing is filial love,
Blessed by the word Divine;
And times to come, illustrious More,
Shall praise this deed of thine.

The soul of man abides unchanged
Though centuries have flown—
The accents of thy duteous heart
Are echoed by our own.

Oh! never may the time arrive,
When Englishmen forget
The reverence unto parents due,
The pattern thou hast set!

Part II.

Who slowly down the river wind,
In yonder darksome barge?
Methinks their bills and halberds speak
Some prisoner in their charge.

There is no music in their oars,
So heavily they row;
No sunshine on the dead white foam
That in their track doth flow.

And now they reach the Tower wharf,
And now have gained the shore;
A crowd is gathered there to see
That prisoner—Thomas More.

How fallen, how changed, from high estate,
To sorrow and disgrace!
Yet free and fearless is his look,
No shame o'erspreads his face.

The Court has met at Westminster,
And there, before them all,
A prisoner he this morning stood,
Within the dark-roofed hall.

How changed, and yet how little changed,
From what he was before,
When through that hall he passed in state,
The Lord High Chancellor!

A prisoner he, for conscience sake
(His heart and spirit free),
For *that* he'd bear, if need there were,
A worse captivity.

For that, he gave up worldly fame,
And every worldly good;
For that, ere many days have passed,
Prepares to shed his blood.

There is a bustle in the crowd
That hems the prisoner round,
Forth from the ranks a lady springs
And kneels upon the ground.

She kneels before Sir Thomas More
—Her eyes with tears are wet,—
And cries "Oh! bless me, father, bless
"Your daughter Margaret!"

Then round his neck her arms she flings,
Clasped in a tight embrace;
Oh! what a world of love and grief
Is crowded in his face!

"God's blessing on thy head, my child;
My heart is known to thee:
Take comfort, thank the Lord, who thus
Hath deigned to honour me."

And so they part, with sad farewells;
The prisoner onward moves;
But not so soon can Margaret leave
The father whom she loves.

Again she presses through the crowd,
No guards her course can check ;
Again she flings her loving arms
About her father's neck.

His face is like an angel's face,
His sorrow hushed and still ;
No sound of grief he utters, though
His eyes with tear-drops fill.

He speaks, as one who bids farewell
To human hopes and cares,
No word but this—"Remember me,
My daughter, in thy prayers."

Again she tears herself away,
In dumb, bewildering pain ;
In all that crowd there scarce is one
Who can from tears refrain.

And to the Tower he is led,
And to his dungeon there ;
She homeward hastens, and pours forth
Her broken heart in prayer.

Part III.

Another week has fled away,
And now the hour draws nigh
When Thomas More, through death's dark gate,
Must pass to liberty.

At daybreak came a messenger,
And these the words he said :
Thou must prepare, ere nine o'clock
This morn, to lose thy head."

"Thrice welcome messenger ! thou bring'st
Good tidings unto me ;
Since Death will set me free at last
From this world's misery.

"I beg one boon—to me 'tis great,
Though in your eyes but small:
O let my daughter Margaret
Be at my burial."

"Already," answered he, "our King
Hath granted this thy prayer;
Thy other children, with thy wife,
Have licence to be there."

But see, the swift-winged day too soon
Hath brought the fated hour;
And Thomas More, in raiment vile,
Forth issues from the Tower.

No bridegroom on his marriage morn
E'er trod with step so light;
His clear grey eye is upward turned,
Angelically bright.

On both sides of the way a crowd
Is ranged in thickset line;
One woman there, by pity moved,
Presents a cup of wine.

"Good wife, I will no wine to-day;
My Master, when he died,
Drank nought but vinegar and gall:"
Thus, as they passed, he cried.

Then onward to the place of death,
With saintly mien he fares;*
Some bear him company with tears,
Some aid him with their prayers.

There stands the scaffold, clothed in black,
The livery of death;
He mounts it, while a thousand eyes
Gaze on him from beneath.

Thence looking down, a few last words
He utters to the crowd;

* Fares, goes. Old English, *faran*, to go. Compare thoroughfare, welfare, fare.

And having bid farewell to earth,
He kneels and prays aloud.

Then calmly on the block he lays
His venerated head;

'Tis severed with a single stroke—
And Thomas More is dead!

"O happy spirit! resting now
In bliss beyond the skies;
Full well for this did'st thou exchange
Thy earthly dignities.

"O father, father,—bitter woe
Is mine this heavy day!
Yet if a word could bring thee back,
That word I would not say."

Such thoughts of mingled joy and grief
Were hid in Margaret's breast,
As silently she followed forth
The body to its rest.

To such a father meet it was
All reverence should be done,
Who in his day had ever been
A true and loyal son.

O mourning daughter! dry thy tears;
The blessing that he gave
Is on thee still, and rises up
Like incense from his grave.

The God of love and peace on thee
Will cause His face to shine;
The Father of the fatherless
Will evermore be thine.

'Ballads from English History.'

Mature.—Ripe; e. g. His powers were not yet mature.

Filial.—Relating to children. *Lat. filius, a son.*

Bill.—A hook-shaped weapon with a long handle.

Halberd.—A kind of axe and spear combined.

Mien.—Countenance.

Dignities.—Honours.

LESSON IX.

THE NEW ZEALAND SNOW-STORM OF 1867.

I FIND, by my Diary, July 29th marked as the beginning of a "sou'-wester." F—— had arranged to start that morning, and as his business was urgent, he did not like to delay his departure, though the day was most unpromising, a steady, fine drizzle, and raw atmosphere; however, we hurried breakfast, and he set off, determining to push on to town as quickly as possible. I never spent such a dismal day in my life: my mind was disturbed by secret anxieties about the possibility of the dray being detained by wet weather, and there was such an extraordinary weight in the air, the dense mist seemed pressing everything down to the ground; however, I drew the sofa to the fire, made up a good blaze (the last I saw for some time), and prepared to pass a lazy day with a book; but I felt so restless and miserable I did not know what was the matter with me. I wandered from window to window, and still the same unusual sight met my eyes; a long procession of ewes and lambs, all travelling steadily down from the hills towards the large flat in front of the house; the bleating was incessant, and added to the intense melancholy of the whole affair. When Mr. U—— came in to dinner at one o'clock, he agreed with me that it was most unusual weather, and said, that on the other ranges the sheep were drifting before the cold mist and rain just in the same way. Our only anxiety arose from the certainty that the dray would be delayed at least a day, and perhaps two: this was a dreadful idea: for some time past we had been economizing our resources to make them last, and we knew that there was absolutely

nothing at the home-station, or at our nearest neighbour's, for they had sent to borrow tea and sugar from us. Just at dusk that evening, two gentlemen rode up, not knowing F—— was from home, and asked if they might remain for the night. I knew them both very well; in fact, one was our cousin T——, and the other an old friend; so they put up their horses, and housed their dogs (for each had a valuable sheep-dog with him) in a barrel full of clean straw, and we all tried to spend a cheerful evening, but everybody confessed to the same extraordinary depression of spirits that I felt.

When I awoke the next morning I was not much surprised to see the snow falling thick and fast: no sheep were now visible, there was a great silence, and the oppression in the atmosphere had if possible increased. We had a very poor breakfast,—no porridge, very little mutton (for, in expectation of the house being nearly empty, the shepherd had not brought any over the preceding day), and *very* weak tea; coffee and cocoa all finished, and about an ounce of tea in the chest. I don't know how the gentlemen amused themselves that day; I believe they smoked a good deal; I could only afford a small fire in the drawing-room, over which I shivered. The snow continued to fall in dense fine clouds, quite unlike any snow I ever saw before, and towards night I fancied the garden fence was becoming very much dwarfed. Still the consolation was, "Oh, it won't last, New Zealand snow never does." However, on Wednesday morning things began to look very serious indeed: the snow covered the ground to a depth of four feet in the shallowest places, and still continued to fall steadily; the cows we knew *must* be in the paddock were not to be seen anywhere; the fowl-house and pig-styes which stood towards the weather quarter

had entirely disappeared; every scrap of wood (and several logs were lying about at the back) was quite covered up; both the verandahs were impassable; in one the snow was six feet deep, and the only door which could be opened was the back-kitchen door, as that opened inwards; but here the snow was half-way over the roof, so it took a good deal of work with the kitchen shovel, for no spades could be found, to dig out a passage. Indoors, we were approaching our last mouthful very rapidly, the tea at breakfast was merely coloured hot water, and we had some picnic biscuits with it. For dinner we had the last tin of sardines, the last pot of apricot jam, and a tin of ratafia biscuits—a most extraordinary mixture, I admit, but there was nothing else. There were six people to be fed every day, and nothing to feed them with. Thursday's breakfast was a discovered crust of dry bread, very stale, and our dinner that day was rice and salt—the last rice in the store-room. The snow still never ceased falling, and only one window in the house afforded us any light; every box was broken up and used for fuel. The gentlemen used to go all together and cut, or rather dig, a passage through the huge drift in front of the stable, and with much difficulty get some food for the seven starving horses outside, who were keeping a few yards clear by incessantly moving about, the snow making high walls all around them.

It was wonderful to see how completely the whole aspect of the surrounding scenery was changed; the gullies were all filled up, and nearly level with the downs; sharp-pointed cliffs were now round bluffs; there was no vestige of a fence or gate or shrub to be seen, and still the snow came down as if it had only just begun to fall; out of doors the silence was like

death, I was told, for I could only peep down the tunnel dug every few hours at the back-kitchen door. My two maids now gave way, and sat clasped in each other's arms all day, crying piteously, and bewailing their fate, asking me whenever I came into the kitchen, which was about every half-hour, for there was no fire elsewhere, "And oh, when do you think we'll be found, mum?" Of course this only referred to the ultimate discovery of our bodies. There was a great search to-day for the cows, but it was useless, the gentlemen sank up to their shoulders in snow. Friday, the same state of things: a little flour had been discovered in a discarded flour-bag, and we had a sort of girdle-cake and water. The only thing remaining in the store-room was some blacklead, and I was considering seriously how that could be cooked, or whether it would be better raw: we were all more than half starved, and quite frozen: very little fire in the kitchen, and none in any other room. Of course, the constant thought was, "Where are the sheep?" Not a sign or sound could be heard. The dogs' kennels were covered several feet deep, so we could not get at them at all. Saturday morning: the first good news I heard was that the cows had been found, and dragged by ropes down to the enclosure the horses had made for themselves: they were half dead, poor beasts; but after struggling for four hours to and from a haystack, two hundred yards off, one end of which was unburied, some oaten hay was procured for them.

There was now not a particle of food in the house. The servants remained in their beds, declining to get up, and alleging that they might as well "die warm." In the middle of the day a sort of forlorn hope was organized by the gentlemen to try and find the fowl-

house, but they could not get through the drift: however, they dug a passage to the wash-house, and returned in triumph with about a pound of very rusty bacon they had found hanging up there; this was useless without fuel, so they dug for a little gate leading to the garden, fortunately hit its whereabouts, and soon had it broken up and in the kitchen grate. By dint of taking all the lead out of the tea-chests, shaking it, and collecting every pinch of tea-dust, we got enough to make a teapot of the weakest tea, a cup of which I took to my poor crying maids in their beds, having first put a spoonful of the last bottle of whisky which the house possessed into it, for there was neither sugar nor milk to be had. At midnight the snow ceased for a few hours, and a hard sharp frost set in; this made our position worse, for they could now make no impression on the snow, and only broke the shovels in trying. I began to think seriously of following the maids' example, in order to "die warm." We could do nothing but wait patiently. I went up to a sort of attic where odds and ends were stowed away, in search of something to eat, but could find nothing more tempting than a supply of wax matches. We knew there was a cat under the house, for we heard her mewing; and it was suggested to take up the carpets first, then the boards, and have a hunt for the poor old pussy; but we agreed to bear our hunger a little longer, chiefly, I am afraid, because she was known to be both thin and aged.

Towards noon on Sunday the weather suddenly changed, and rain began to come down heavily and steadily; this cheered us all immensely, as it would wash the snow away probably,—and so it did to some degree: the highest drifts near the house lessened considerably in a few hours, and the gentlemen, who by

this time were desperately hungry, made a final attempt in the direction of the fowl-house, found the roof, tore off some shingles, and returned with a few aged hens, which were mere bundles of feathers after their week's starvation. The servants consented to rise and pluck them, whilst the gentlemen sallied forth once more to the stock-yard, and with great difficulty got off two of the cap or top rails, so we had a splendid though transitory blaze, and some hot stewed fowl; it was more of a soup than anything else, but still we thought it delicious: and then everybody went to bed again, for the house was quite dark still, and the oil and candles were running very low. On Monday morning the snow was washed off the roof a good deal by the deluge of rain which had never ceased to come steadily down, and the windows were cleared a little, just at the top; but we were delighted at the improvement, and had some cold weak fowl-soup for breakfast, which we thought excellent. On getting out of doors, the gentlemen reported the creeks to be much swollen and rushing in yellow streams down the sides of the hills over the snow, which was apparently as thick as ever; but it was now easier to get through at the surface, though quite solid for many feet from the ground. A window was scraped clear, through which I could see the desolate landscape out of doors, and some hay was carried with much trouble to the starving cows and horses, but this was a work of almost incredible difficulty. Some more fowls were procured to-day, nearly the last, for a large hole in the roof showed most of them dead of cold and hunger.

We were all in much better spirits on this night, for there were signs of the wind shifting from south to north-west; and, for the first time in our lives I sup-

pose, we were anxiously watching and desiring this change, as it was the only chance of saving the thousands of sheep and lambs we now knew lay buried under the smooth white winding-sheet of snow. Before bedtime we heard the fitful gusts we knew so well, and had never before hailed with such deep joy and thankfulness. Every time I woke the same welcome sound of the roaring warm gale met my ears; and we were prepared for the pleasant sight on Tuesday morning, of the highest rocks on the hilltops standing out gaunt and bare once more. The wind was blowing the snow off the hills in clouds like spray, and melting it everywhere so rapidly that we began to have a new anxiety, for the creeks were rising fast, and running in wide, angry-looking rivers over the frozen snow on the banks. All immediate apprehension of starvation, however, was removed, for the gentlemen dug a pig out of his sty, where he had been warm and comfortable with plenty of straw, and slaughtered him; and in the loft of the stable was found a bag of Indian meal for fattening poultry, which made excellent cakes of bread. It was very nasty having only ice-cold water to drink at every meal. I especially missed my tea for breakfast; but felt ashamed to grumble, for my disagreeables were very light compared to those of the three gentlemen. From morning till night they were wet through, as the snow of course melted the moment they came indoors. All the first part of the last week they used to work out of doors, trying to get food and fuel, or feeding the horses, in the teeth of a bitter wind, with the snow driving like powdered glass against their smarting hands and faces; and they were as cheery and merry as possible through it all, trying hard to pretend they were neither hungry nor cold, when

they must have been both. Going out of doors at this state of affairs simply meant plunging up to their middle in a slush of half-melted snow which wet them thoroughly in a moment; and they never had dry clothes on again till they changed after dark, when there was no more possibility of outdoor work.

Wednesday morning broke bright and clear for the first time since Sunday week; we actually saw the sun. Although the "nor'-wester" had done so much good for us, and a light wind still blew softly from that quarter, the snow was yet very deep; but I felt in such high spirits that I determined to venture out, and equipped myself in a huge pair of F——'s riding boots made of kangaroo-skin, well greased with weka-oil to keep the wet out. These I put on over my own thick boots, but my precautions "did nought avail," for the first step I took sank me deep in the snow over the tops of my enormous boots. They filled immediately, and then merely served to keep the snow securely packed round my ankles; however, I struggled bravely on, every now and then sinking up to my shoulders, and having to be hauled out by main force. The first thing done was to dig out the dogs, who assisted the process by vigorously scratching away inside and tunnelling towards us. Poor things, how thin they looked, but they were quite warm; and after indulging in a long drink at the nearest creek, they bounded about like mad creatures. The only casualties in the kennels were two little puppies, who were lying cuddled up as if they were asleep, but proved to be stiff and cold; and a very old but still valuable collie called 'Gipsy.' She was enduring such agonies from rheumatism that it was terrible to hear her howls; and after trying to relieve her by rubbing, taking her into the stable—and in fact

doing all we could for her—it seemed better and kinder to shoot her two days afterwards.

We now agreed to venture into the paddock and see what had happened to the bathing-place about three hundred yards from the house. I don't think I have told you that the creek had been here dammed up with a sod wall twelve feet high, and a fine deep and broad pond made, which was cleared of weeds and grass, and kept entirely for the gentlemen to have a plunge and swim at daylight of a summer's morning; there had been a wide trench cut about two feet from the top, so as to carry off the water, and hitherto this had answered perfectly. The first thing we had to do was to walk *over* the high five-barred gate leading into the paddock: just the topmost bar was sticking up, but there was not a trace of the little garden gate or of the fence, which was quite a low one. We were, however, rejoiced to see that on the ridges of the sunny downs there were patches, or rather streaks, of tussocks visible, and they spread in size every moment, for the sun was quite warm, and the "nor'-wester" had done much towards softening the snow. It took us a long time to get down to where the bathing-place *had been*, for the sod wall was quite carried away, and there was now only a heap of ruin, with a muddy torrent pouring through the large gap and washing it still more away. Close to this was a very sunny sheltered down, or rather hill; and as the snow was rapidly melting off its warm sloping sides, we agreed to climb it and see if any sheep could be discovered, for up to this time there had been none seen or heard, though we knew several thousands must be on this flat and the adjoining ones.

As soon as we got to the top the first glance showed us a small dusky patch close to the edge of one of the

deepest and widest creeks at the bottom of the paddock; experienced eyes saw they were sheep, but to me they had not the shape of animals at all, though they were quite near enough to be seen distinctly. I observed the gentlemen exchange looks of alarm, and they said to each other some low words, from which I gathered that they feared the worst. Before we went down to the flat we took a long, careful look round, and made out another patch, dark by comparison with the snow, some two hundred yards lower down the creek, but apparently in the water. On the other side of the little hill the snow seemed to have drifted even more deeply, for the long narrow valley which lay there presented, as far as we could see, one smooth, level snow-field. On the dazzling white surface the least fleck shows, and I can never forget how beautiful some swamp-hens, with their dark blue plumage, short, pert, white tails, and long bright legs, looked, as they searched slowly along the banks of the swollen creek for some traces of their former haunts; but every tuft of tohi-grass lay bent and buried deep beneath its heavy covering. The gentlemen wanted me to go home before they attempted to see the extent of the disaster, which we all felt must be very great; but I found it impossible to do anything but accompany them. I am half glad and half sorry now that I was obstinate; glad, because I helped a little at a time when the least help was precious, and sorry because it was really such a horrible sight. Even the first glance showed us that, as soon as we got near the spot we had observed, we were walking on frozen sheep embedded in the snow one over the other; but at all events their misery had been over some time.

No one can ever tell how many hundred ewes and lambs had taken refuge under the high terrace which

forms the bank of the creek. The snow had soon covered them up, but they probably were quite warm and dry at first. The terrible mischief was caused by the creek rising so rapidly, and, filtering through the snow. The poor sheep must have been gradually drowned as they stood huddled together. Those nearest the edge of the water of course went first, but we were fortunately in time to save a good many, though the living seemed as nothing compared to the heaps of dead. We did not waste a moment in regrets or idleness; the most experienced of the gentlemen said briefly what was to be done, and took his coat off; the other coats and my little Astrachan jacket were lying by its side in an instant, and we all set to work, sometimes up to our knees in icy water, digging at the bank of snow above us—if you can call it digging when we had nothing but our hands to dig, or rather scratch, with. Oh, how hot we were in five minutes! the sun beating on us, and the reflection from the snow making its rays almost blinding. It was of no use my attempting to rescue the sheep, for I could not move them, even when I had *scrattled* the snow away from one. A sheep, especially with its fleece full of snow, is beyond my small powers: even the lambs I found a tremendous weight, and it must have been very absurd if an idler had been by, to see me, with a little lamb in my arms, tumbling down at every second step, but still struggling manfully towards the dry oasis where we put each animal as it was dug out. The dear doggies helped us beautifully, working so eagerly and yet so wisely under their master's eye, as patient and gentle with the poor stiffened creatures as if they could feel for them. I was astonished at the vitality of some of the survivors; if they had been very far back and not chilled by the

water, they were quite lively. The strongest sheep were put across the stream by the dogs, who were obedient to their master's finger, and not to be induced on any terms to allow the sheep to land a yard to one side of the place on the opposite bank, but just where they were to go. A good many were swept away, but after six hours' work we counted 1400 rescued ones slowly "trailing" up the low sunny hill I have mentioned, and nibbling at the tussocks as they went. The proportion of lambs was, of course, very small, but the only wonder to me is that there were any alive at all. If I had been able to stop my scratching but for a moment, I would have had what the servants call a "good cry" over one little group I laid bare. Two fine young ewes were standing leaning against each other in a sloping position like a tent, frozen and immoveable: between them, quite dry, and as lively as a kitten, was a dear little lamb of about a month old belonging to one; the lamb of the other lay curled up at her feet, dead and cold; I really believe they had hit upon this way of keeping the other alive. A more pathetic sight I never beheld.

Lady Barker's 'Station Life.'

Economize.—To use sparingly; e. g. We are obliged to economize our provisions.

Paddock.—A little enclosed field near a house.

Vestige.—Trace; e. g. Not a vestige of the castle is now left.

Attic.—The topmost room of a house.

Transitory.—Passing; e. g. Their pleasure was but transitory.

Incredible.—Not admitting of belief; e. g. His story was incredible.

Casualty.—An accident, a misadventure.

Tussock.—A slight grassy eminence.

Oasis.—Properly, a green spot in the midst of a desert.

LESSON X.

THE ORIGIN OF ROAST FIG.

MANKIND, says a Chinese manuscript, which my friend M. was obliging enough to read and explain to me, for the first seventy thousand ages ate their meat raw, clawing it or biting it from the living animal, just as they do in Abyssinia to this day.

The manuscript goes on to say that the art of roasting, or rather broiling (which I take to be the elder brother), was accidentally discovered in the manner following:—

The swineherd, Ho-ti, having gone out into the wood one morning, as his manner was, to collect food for his hogs, left his cottage in the charge of his eldest son, Bo-bo, a great lubberly boy, who, being fond of playing with fire, as youngsters of his age commonly are, let some sparks escape into a bundle of straw, which, kindling quickly, spread the conflagration over every part of their poor mansion, till it was reduced to ashes. Together with the cottage (a sorry antediluvian makeshift of a building, you may think it), what was of much more importance, a fine litter of new-farrowed pigs, no less than nine in number, perished. China pigs have been esteemed a luxury all over the East, from the remotest periods that we read of. Bo-bo was in the utmost consternation, as you may think, not so much for the sake of the tenement, which his father and he could easily build up again with a few dry branches and the labour of an hour or two, at any time, as for the loss of the pigs.

While he was thinking what he should say to his

father, and wringing his hands over the smoking remnants of one of those untimely sufferers, an odour assailed his nostrils unlike any scent which he had before experienced. What could it proceed from? Not from the burnt cottage—he had smelt that smell before; indeed, this was by no means the first accident of the kind which had occurred through the negligence of this unlucky young firebrand—much less did it resemble that of any known herb, weed, or flower.

He knew not what to think. He next stooped down to feel the pig, if there were any signs of life in it. He burnt his fingers, and to cool them he applied them, in his booby fashion, to his mouth. Some of the crumbs of the scorched skin had come away with his fingers, and for the first time in his life (in the world's life, indeed, for before him no man had known it) he tasted—*crackling!* Again he felt and fumbled at the pig. It did not burn him so much now, still he licked his fingers from a sort of habit.

The truth at length broke into his slow understanding that it was the pig that smelt so, and the pig that tasted so delicious; and surrendering himself up to the new-born pleasure, he fell to tearing up whole handfuls of the scorched skin with the flesh next to it, when his sire entered amid the smoking rafters, armed with retributory cudgel; and finding how affairs stood, began to rain blows upon the young rogue's shoulders as thick as hailstones, which Bo-bo heeded not any more than if they had been flies.

The tickling pleasure which he experienced in his lower regions, had rendered him quite callous to any inconveniences he might feel in those remote quarters. His father might lay on, but he could not beat him from his pig till he had fairly made an end of it;

when, becoming a little more sensible of his situation, something like the following dialogue ensued:—

“You graceless whelp, what have you got there devouring? Is it not enough that you have burnt me down three houses with your dog’s tricks, but you must be eating fire, and I know not what? What have you got there, I say?” “Oh, father, the pig—the pig! Do come and taste how nice the burnt pig eats!”

The ears of Ho-ti tingled with horror. He cursed his son, and he cursed himself that ever he should have a son that should eat burnt pig. Bo-bo, whose scent was wonderfully sharpened since morning, soon raked out another pig, and, fairly rending it asunder, thrust the lesser half by main force into the fists of Ho-ti, still shouting out, “Eat, eat, eat the burnt pig, father; only taste!” cramming all the while as if he would choke.

Ho-ti trembled in every joint while he grasped the abominable thing, wavering whether he should not put his son to death for an unnatural young monster, when the crackling, scorching his fingers as it had done his son’s, and applying the same remedy to them, he in his turn tasted some of its flavour, which, make what sour mouths he would for pretence, proved not altogether displeasing to him. In conclusion (for the manuscript here is a little tedious), both father and son fairly sat down to the mess, and never left off till they had despatched all that remained of the litter.

Bo-bo was strictly enjoined not to let the secret escape, for the neighbours would certainly have stoned them for a couple of abominable wretches, who could think of improving upon the good meat which God had sent them. Nevertheless, strange stories got about. It was observed that Ho-ti’s cottage was burnt down now

more frequently than ever. Nothing but fires from this time forward. Some would break out in broad day, others in the night time.

At length they were watched, the terrible mystery discovered, and father and son summoned to take their trial at Pekin, then an inconsiderable assize town. Evidence was given, the obnoxious food itself produced in court, and verdict about to be pronounced, when the foreman of the jury begged that some of the burnt pig, of which the culprits stood accused, might be handed into the box. He handled it, and they all handled it; and, burning their fingers as Bo-bo and his father had done before them, and nature prompting to each of them the same remedy, against the face of all the facts, and the clearest charge which judge had ever given—to the surprise of the whole Court, town-folk, strangers, reporters, and all present—without leaving the box, or any manner of consultation whatever, they brought in a simultaneous verdict of Not Guilty.

The judge, who was a shrewd fellow, winked at the manifest iniquity of the decision; and, when the Court was dismissed, went privily and bought up all the pigs that could be had for love or money. In a few days his lordship's town-house was observed to be on fire. The thing took wing, and now there was nothing to be seen but fires in every direction. Fuel and pigs grew enormously dear all over the district. The insurance offices one and all shut up shop. People built slighter and slighter every day, until it was feared that the very science of architecture would in no long time be lost to the world. Thus this custom of firing houses continued, till, in process of time, says the manuscript, a sage arose, like our Locke, who made a dis-

covery that the flesh of swine, or indeed of any other animal, might be cooked (*burnt*, as they called it) without the necessity of consuming a whole house to dress it.

Then first began the rude form of a gridiron. Roasting by the string, or spit, came in a century or two later—I forget in whose dynasty. By such slow degrees, concludes the manuscript, do the most useful, and seemingly the most obvious arts make their way among mankind. Without placing too implicit faith on the account thus given, it must be agreed, that if a worthy pretext for so dangerous an experiment as setting houses on fire could be assigned in favour of any culinary object, that pretext and excuse might be found in ROAST PIG.

CHARLES LAMB.

Manuscript.—Something written with the hand. *Lat. manus*, a hand; *scribo*, to write.

Conflagration.—Fire. *Lat. flagro*, to burn.

Antediluvian.—Before the deluge.

Consternation.—Fear, terror.

Retributory.—Bringing retribution or punishment.

Callous.—Hard, insensible; e. g. His heart was quite callous.

Dialogue.—A conversation.

Enjoin.—To order; e. g. He was enjoined not to play by the water.

Obnoxious.—Giving offence; e. g. His conduct was obnoxious. *Lat. noceo*, to injure.

Culprit.—An offender. *Lat. culpa*, a fault.

Simultaneous.—Occurring at one time; e. g. The class gave a simultaneous answer. *Lat. simul*, at once.

Manifest.—Open, evident.

Iniquity.—Wickedness, a departure from what is just.

Privily.—Secretly, privately.

Dynasty.—A line of kings; e. g. The Stuart dynasty were invariably unfortunate.

Obvious.—Unavoidable, literally in the way; e. g. His meaning was obvious. *Lat. ob*, against; *via*, way.

Culinary.—Cooking.

LESSON XI.

LADY JANE GREY.

THE guiltless usurpation of this excellent and much lamented youthful victim of an ambitious faction was brief enough. Within ten days after her proclamation and exhibition as queen, and her taking up her residence in that character in the Tower of London, the rightful heiress, Mary, was in full possession of all of which it had been attempted to deprive her, and Queen Jane, and her young consort, had to come down from their thrones, and to bid an eternal farewell to all earthly glory. The Tower palace became almost instantaneously the Tower prison. Northumberland perished at once on the block, but Lady Jane and her husband had probably been spared, but for Wyatt's ill-managed insurrection, which broke out on the news of the queen's intended marriage with the cruel bigot of Spain, King Philip, and was supported by Lady Jane Grey's father, the Duke of Suffolk. The insurrection failed, and not only involved all those in ruin who had directly promoted it, but those in the Tower, who assuredly desired nothing so much as a peaceable and unambitious life. Within a week after Wyatt's discomfiture it was determined that Lady Jane and her husband should both die, and on the same day. Fecknam, a Catholic dean of St. Paul's, was sent to endeavour to change her faith, but all his learned arguments failed with one who was more than his equal in controversy. Lady Jane preserved her fortitude admirably through the closing scenes of her life; and that it might not be shaken, she refused a farewell meeting with Lord Guilford, on the morning of

the fatal day; it would foment their grief, she said, rather than be a comfort in death, and they would shortly meet in a better place, and more happy estate. But she had a severer trial than this would have been. From the window of "Master Partridge's house," where she was lodged, she beheld Lord Guilford, going to execution, and exchanged with him her last parting signal. He passed on to Tower-hill, was brought back in a cart to be buried in the Tower Chapel, and she looked upon his headless trunk, "at the same instant that she went to her death, which miserable sight was to her a double sorrow and grief." That such an exhibition was not spared to such a wife shows the brutal insensibility of those in authority who regulated the proceedings. "O Guilford, Guilford!" exclaimed the unhappy lady, rising even in her agony to the highest sublimity of Christian heroism, "the antepast is not so bitter that thou hast tasted, and which I shall soon taste, as to make my flesh tremble; it is nothing compared to the feast of which we shall partake this day in heaven." She immediately went forth to her own scaffold, which for privacy was on the Tower green, in countenance nothing cast down, neither her eyes anything moistened with tears, although her gentlewomen, Elizabeth Tilney and Mistress Helen, wonderfully wept. Holding a book in her hand, she prayed till she came to the scaffold; there in a modest address to the bystanders, she stated that she had justly deserved punishment, for suffering herself to be made the instrument, though unwilling, of the ambition of others, and that she hoped her fate might serve as a memorable example in after times. The executioner beginning to disrobe her, she desired him to let her alone, and turned to her attendants, who

performed this melancholy office, giving her a fair handkerchief to bind about her eyes. The executioner then requested her to stand on the straw, which she did, saying, "I pray you dispatch me quickly." As she knelt she inquired, "Will you take it off before I lay me down?" "No, madam," was the reply. Then she tied the handkerchief about her eyes, and feeling for the block, she said, "Where is it? where is it?" One of the standers-by guided her thereunto, and she laid her head down, and stretched forth her body, and said, "Lord, into thy hands I commend my spirit," and so died, at seventeen years old.

‘*Old England.*’

Usurpation.—The seizure of titles or possessions which do not belong to one.

Ambitious.—Desirous of power or distinction. *Lat. ambire*, to go about seeking support, like candidates for public offices.

Faction.—A party which subordinates public to private interests.

Bigot.—A person who seeks to force his views upon other people.

Controversy.—Argument.

Fortitude.—Power of endurance, courage. *Lat. fortis*, brave.

Foment.—To inflame, increase.

Insensibility.—Absence of feeling.

Sublimity.—Grandeur. *Lat. levo*, to lift.

Antepast.—A fore-taste. Compare *repast*. *Lat. pasco*, to feed.

LESSON XII.

VOLCANO OF KILAUEA.

"Is that possibly a pool of blood?" I thought in horror, as a rain puddle glowed crimson on the track. Not that indeed! A glare brighter and redder than that from any furnace suddenly lightened the whole sky, and from that moment brightened our path. There sat Miss K. The scene started out from the darkness

with the suddenness of a revelation. We felt the pungency of sulphurous fumes in the still night air. A sound as of the sea broke on our ears, rising and falling as if breaking on the shore, but the ocean was thirty miles away. The heavens became redder and brighter, and when we reached the crater-house at eight, clouds of red vapour mixed with flame were curling ceaselessly out of a huge invisible pit of blackness, and Kilauea was in all its fiery glory. We had reached the largest active volcano in the world, the "place of everlasting burnings."

Rarely was light more welcome than that which twinkled from under the verandah of the lonely crater-house into the rainy night. The hospitable landlord of this unique dwelling lifted me from my horse, and carried me into a pleasant room thoroughly warmed by a large wood fire, and I hastily retired to bed to spend much of the bitterly cold night in watching the fiery vapours rolling up out of the infinite darkness, and in dreading the descent into the crater. The heavy clouds were crimson with the reflection, and soon after midnight jets of flame of a most peculiar colour leapt fitfully into the air, accompanied by a dull throbbing sound.

This morning was wet and murky, as many mornings are here, and the view from the door was a blank up to ten o'clock, when the mist rolled away and revealed the mystery of last night, the mighty crater whose vast terminal wall is only a few yards from this house. We think of a volcano as a cone. This is a different thing. The abyss, which really is at a height of nearly 4000 feet on the flank of Mauna Loa, has the appearance of a great pit on a rolling plain. But such a pit! It is nine miles in circumference, and its lowest area, which not long ago fell about 300 feet, just as ice on a pond

falls when the water below it is withdrawn, covers six square miles. The depth of the crater varies from 800 to 1100 feet in different years, according as the molten sea below is at flood or ebb. Signs of volcanic activity are present more or less throughout its whole depth, and for some distance round its margin, in the form of steam cracks, jets of sulphurous vapour, blowing cones, accumulating deposits of needle-shaped crystals of sulphur, &c., and the pit itself is constantly rent and shaken by earthquakes. Grand eruptions occur at intervals with circumstances of indescribable terror and dignity, but Kilauea does not limit its activity to these outbursts, but has exhibited its marvellous phenomena through all known time in a lake or lakes in the southern part of the crater three miles from this side.

This lake, the Hale-mau-mau, or House of Everlasting Fire of the Hawaiian mythology, the abode of the dreaded goddess Pelé, is approachable with safety except during an eruption. The spectacle, however, varies almost daily, and at times the level of the lava in the pit within a pit is so low, and the suffocating gases are evolved in such enormous quantities, that travellers are unable to see anything. There had been no news from it for a week, and, as nothing was to be seen but a very faint bluish vapour hanging round its margin, the prospect was not encouraging.

The first descent down the terminal wall of the crater is very precipitous. The "beyond" looked terrible. I could not help clinging to these vestiges of the kindlier mood of nature in which she sought to cover the horrors she had wrought. The next descent is over rough blocks and ridges of broken lava, and appears to form part of a break which extends irregu-

larly round the whole crater, and which probably marks a tremendous subsidence of its floor. Here the last apparent vegetation was left behind, and the familiar earth. We were in a new Plutonic region of blackness and awful desolation, the accustomed sights and sounds of nature all gone. Terraces, cliffs, lakes, ridges, rivers, mountain sides, whirlpools, chasms of lava surrounded us, solid, black, and shining, as if vitrified, or an ashen grey, stained yellow with sulphur here and there, or white with alum. The lava was fissured and upheaved everywhere by earthquakes, hot underneath, and emitting a hot breath.

After more than an hour of very difficult climbing, we reached the lowest level of the crater, pretty nearly a mile across, presenting from above the appearance of a sea at rest, but, on crossing it, we found it to be an expanse of waves and convolutions of ashy-coloured lava, with huge cracks filled up with black iridescent rolls of lava, only a few weeks old. Parts of it are very rough and ridgy, jammed together like field ice, or compacted by rolls of lava which may have swelled up from beneath, but the largest part of the area presents the appearance of huge coiled hawsers, the ropy formation of the lava rendering the illusion almost perfect. These are riven by deep cracks which emit hot sulphurous vapours. Strange to say, in one of these, deep down in that black and awful region, three slender metamorphosed ferns were growing, three exquisite forms, the fragile heralds of the great forest of vegetation, which probably in coming years will clothe this pit with beauty. Truly they seemed to speak of the love of God. On our right there was a precipitous ledge, and a recent flow of lava had poured over it, cooling as it fell into columnar shapes as symmetrical

as those of Staffa. It took us a full hour to cross this deep depression, and as long to master a steep hot ascent of about 400 feet, formed by a recent lava-flow from Hale-mau-mau into the basin. This lava hill is an extraordinary sight—a flood of molten stone, solidifying as it ran down the declivity, forming arrested waves, streams, eddies, gigantic convolutions, forms of snakes, stems of trees, gnarled roots, crooked water-pipes, all involved and contorted on a gigantic scale, a wilderness of force and dread. Over one steeper place the lava had run in a fiery cascade about 100 feet wide. Some had reached the ground, some had been arrested midway, but all had taken the aspect of stems of trees. In some of the crevices I picked up a quantity of very curious thread-like lava, known as “Pelé’s hair.” It resembles coarse spun glass, and is of a greenish or yellowish brown colour. In many places the whole surface of the lava is covered with this substance seen through a glazed medium. During eruptions, when fire fountains play to a great height, and drops of lava are thrown in all directions, the wind spins them out in clear green or yellow threads two or three feet long, which catch and adhere to projecting points.

As we ascended, the floor became hotter under our feet, as well as more porous and glistening. It was so hot that a shower of rain hissed as it fell upon it. The crust became increasingly insecure, and necessitated our walking in single file with the guide in front, to test the security of the footing. I fell through several times, and always into holes full of sulphurous steam, so malignantly acid that my strong dog-skin gloves were burned through as I raised myself on my hands.

We had followed a lava-flow for thirty miles up to

the crater's brink, and now we had toiled over recent lava for three hours, and by all calculation were close to the pit, yet there was no smoke or sign of fire, and I felt sure that the volcano had died out for once for our especial disappointment. Indeed, I had been making up my mind for disappointment since we left the crater-house, in consequence of reading seven different accounts, in which language was exhausted in describing Kilauea.

Suddenly, just above, and in front of us, gory drops were tossed in air, and springing forwards we stood on the brink of Hale-mau-mau, which was about 35 feet below us. I think we all screamed, I know we all wept, but we were speechless, for a new glory and terror had been added to the earth. It is the most unutterable of wonderful things. The words of common speech are quite useless. It is unimaginable, indescribable, a sight to be remembered for ever, a sight which at once took possession of every faculty of sense and soul, removing one altogether out of the range of ordinary life. Here was the real "bottomless pit"—the "fire which is not quenched"—"the place of hell"—"the lake which burneth with fire and brimstone"—the "everlasting burnings"—the fiery sea whose waves are never weary. There were groanings, rumblings, and detonations, rushings, hissings, and splashings, and the crashing sound of breakers on the coast, but it was the surging of fiery waves upon a fiery shore. But what can I write! Such words as jets, fountains, waves, spray, convey some idea of order and regularity, but here there was none. The inner lake, while we stood there, formed a sort of crater within itself, the whole lava sea rose about three feet, a blowing cone about eight feet high was formed, it was never the

same two minutes together. And what we saw had no existence a month ago, and probably will be changed in every essential feature a month hence.

What we did see was one irregularly-shaped lake, possibly 500 feet wide at its narrowest part, and nearly half a mile at its broadest, almost divided into two by a low bank of lava, which extended nearly across it where it was narrowest, and which was raised visibly before our eyes. The sides of the nearest part of the lake were absolutely perpendicular, but nowhere more than 40 feet high; but opposite to us on the far side of the larger lake they were bold and craggy, and probably not less than 150 feet high. On one side there was an expanse entirely occupied with blowing cones, and jets of steam or vapour. The lake has been known to sink 400 feet, and a month ago it overflowed its banks. The prominent object was fire in motion, but the surface of the double lake was continually skinning over for a second or two with a cooled crust of a lustrous grey-white, like frosted silver, broken by jagged cracks of a bright rose-colour. The movement was nearly always from the sides to the centre, but the movement of the centre itself appeared independent, and always took a southerly direction. Before each outburst of agitation there was much hissing and a throbbing internal roaring, as of imprisoned gases. Now it seemed furious, demoniacal, as if no power on earth could bind it, then playful and sportive, then for a second languid, but only because it was accumulating fresh force. On our arrival eleven fire fountains were playing joyously round the lakes, and sometimes the six of the nearer lake ran together in the centre to go wallowing down in one vortex, from which they reappeared bulging upwards, till they formed a huge cone

30 feet high, which plunged downwards in a whirlpool only to reappear in exactly the previous number of fountains in different parts of the lake, high leaping, raging, flinging themselves upwards. Sometimes the whole lake, abandoning its usual centripetal motion, as if impelled southwards, took the form of mighty waves, and surging heavily against the partial barrier with a sound like the Pacific surf, lashed, tore, covered it, and threw itself over it in clots of living fire. It was all confusion, commotion, force, terror, glory, majesty, mystery, and even beauty. And the colour! "Eye hath not seen" it! Molten metal has not that crimson gleam, nor blood that living light! Had I not seen this, I should never have known that such a colour was possible.

The crust perpetually wrinkled, folded over, and cracked, and great pieces were drawn downwards to be again thrown up on the crests of waves. The eleven fountains of gory fire played the greater part of the time, dancing round the lake with a strength of joyousness which was absolute beauty. Indeed, after the first half hour of terror had gone by, the beauty of these jets made a profound impression upon me, and the sight of them must always remain one of the most fascinating recollections of my life. During three hours, the bank of lava which almost divided the lakes rose considerably, owing to the cooling of the spray as it dashed over it, and a cavern of considerable size was formed within it, the roof of which was hung with fiery stalactites, more than a foot long. Nearly the whole time the surges of the further lake taking a southerly direction, broke with a tremendous noise on the bold craggy cliffs which are its southern boundary, throwing their gory spray to a height of fully 40 feet.

At times an overhanging crag fell in, creating a vast splash of fire and increased commotion.

Almost close below us there was an intermittent jet of lava, which kept cooling round what was possibly a blow-hole forming a cone with an open top, which when we first saw it was about six feet high on its highest side, and about as many in diameter. Up this cone or chimney heavy jets of lava were thrown every second or two, and, cooling as they fell over its edge, raised it rapidly before our eyes. Its fiery interior, and the singular sound with which the lava was vomited up, were very awful. There was no smoke rising from the lake, only a faint blue vapour which the wind carried in the opposite direction. The heat was excessive. We were obliged to stand the whole time, and the soles of our boots were burned, and my ear and one side of my face were blistered. Although there was no smoke from the lake itself, there was an awful region to the westward, of smoke and sound, and rolling clouds of steam and vapour whose phenomena it was not safe to investigate, where the blowing cones are, whose fires last night appeared stationary. We were able to stand quite near the margin, and look down into the lake, as you look into the sea from the deck of a ship, the only risk being that the fractured ledge might give way.

Before we came away, a new impulse seized the lava. The fire was thrown to a great height; the fountains and jets all wallowed together; new ones appeared, and danced joyously round the margin, then converging towards the centre, they merged into one glowing mass, which upheaved itself pyramidally, and disappeared with a vast plunge. Then innumerable billows of fire dashed themselves into the air, crashing and lashing,

and the lake dividing itself recoiled on either side, then hurling its fires together, and rising as if by upheaval from below, it surged over the temporary rim which it had formed, passing downwards in a slow majestic flow, leaving the central surface swaying and dashing in fruitless agony as if sent on some errand it failed to accomplish. *Miss Bird's 'Hawaiian Archipelago.'*

Pungency.—Sharpness. *Lat. pungo*, to prick.

Unique.—Having no parallel, standing alone of its kind; e. g. Its beauty was unique.

Fitfully.—Interruptedly, every now and then.

Terminal.—Belonging to the end. *Lat. terminus*, end.

Evolve.—To emit, to roll out. *Lat. volvo*, to roll.

Subsidence.—A settling down. *Lat. sedeo*, to sit.

Plutonic.—Resembling the lower world over which, in the old mythology, Pluto was represented as ruling.

Vitrified.—Made like glass. *Lat. vitrum*, glass.

Convolution.—A twisting or wreathing. *Lat. volvo*, to roll. Thus the poet speaks of "the convolutions of a smooth-lipped shell."

Iridescent.—Having the hues of the rainbow.

Compacted.—Rendered firm and solid.

Hawser.—A thick cable.

Metamorphosed.—Transformed. *Gr.*, meta, after; *morphe*, shape.

Fragile.—Frail, delicate; e. g. We found a fragile shell upon the shore.

Precipitous.—Steep. *Lat. præceps*, headlong.

Symmetrical.—Well-proportioned; e. g. The building was perfectly symmetrical.

Contorted.—Twisted. *Lat. torqueo*, to twist. Compare distort, torment.

Malignant.—Corrosive; properly, ill-disposed, ill-intentioned.

Detonations.—Explosions.

Vortex.—Whirlpool.

Centripetal.—Tending to the centre.

Stalactite.—An icicle-shaped point of rock hanging from the roof of a cave.

Intermittent.—Fitful, acting only now and then.

LESSON XIII.

THE WEATHER AND CLIMATE OF ENGLAND.

THE greatest heat of the sunshine falls upon a broad belt of the earth which is midway between the opposite poles of its spinning movement. In that broad belt, which is called the "Torrid" or burning Zone, the sun shines most directly down upon the ground and sea of the revolving, or rotating globe; and it does so, in that position, day after day, without any change of season from summer to winter. In the torrid region of the earth there is no winter: it is there summer all the year round. The solid ground, in those burning parts, gets hotter during the day and cooler during the night; but the sea drinks in the heat of the sunshine by day, without giving back any important part of it at night, and so becomes equally warm by night and by day. Thus in the hottest parts of the earth, the water of the sea gets a steady and never-varying temperature of about 86° of Fahrenheit's thermometer. Such at all times is the warmth of the water in the middle of the Atlantic Ocean.

For certain reasons which there is not room here to explain, the sun-heated water from the middle of the Atlantic Ocean drifts in one vast current up towards the sea-coast of Europe, and towards the British Isles. It keeps giving off its heat, and gets colder and colder, as it does this. But it can only give the heat which it thus loses to one thing; it must give it all to the soft garment of air which rests directly above the surface of the sea. As the water of the ocean becomes colder and colder, the air over the ocean gets warmer and warmer by taking in the warmth which the sea gives off. If,

then, this air blows on towards land as wind, it reaches that land at last as a soft, warm air-current. The south-west wind in England, which comes in this way over the warm, sun-heated water of the Atlantic, is therefore a warm wind. It is also a moist wind, and brings abundance of rain, because as it comes along it drinks up more and more water from the ocean in the state of invisible vapour, as well as heat; and then, when it is afterwards chilled by the land, it again throws this water down as clouds and rain.

The north-east wind in England, on the other hand, comes blowing from over the cold, dry land of the northern parts of Europe. It consequently brings with it coldness and dryness; clear skies, and little rain. This, however, varies very much at different seasons of the year, because the land does not ever get warmed to a steady, even, degree of heat, as the sea does. The north-east wind gradually loses its extreme coldness in the advancing summer, because the land which it blows across is then much more warmed by the sunshine.

No one will be surprised that the direction of the wind has so very much to do with the weather, if it be only remembered how far this wind can come in even a short period of time. A fresh breeze moving at the rate of some twenty miles an hour, if it blow steadily on, can travel to England from the warm sea of the torrid zone in a week or ten days. A strong gale or hurricane can do the same thing in a considerably shorter period.

In most places of the earth, and very markedly in England, the wind blows from opposite quarters by alternate fits,—now for a few days from the warm and moist south-west, and now for a few days from the cold and dry north-east. There is some ruling cause at work, but imperfectly understood as yet, which provides

for this frequent reversal of the air-current. The result, however, is that useful and beneficial variety of weather which at one time cools the air with clouds and waters the thirsty earth with showers, and at another time makes the plants grow through the genial influence of unclouded sunshine. One means, however, by which this advantageous result is arranged undoubtedly is the constant shifting about upon the earth of the heavy and light tracts of the air. These centres of greatest and least weight are not immoveably fixed over particular regions of the land and sea. The atmospheric areas of high pressure and of low pressure, as they are termed, are for ever drifting, within certain limits, from place to place, whirling and curving round as they go, now this way, now that, and changing continually the set, or direction, of the wind-current, for any given and fixed locality. The winds that occasionally blow in England from other quarters than the north-east and south-west are to be referred to this cause, and to the fact that the moving wind eddies round in air-whirlpools, instead of blowing in straight lines.

The summer and winter, or seasons of extreme heat and greatest cold, in all temperate regions of the earth are due to the varying power of the sunshine upon the ground at opposite periods of the year. Thus in England, when the day is long, and when the sun shines fiercely down from a high altitude, upon it, and upon a large extent around, and continuously for several hours at a time, the ground and all solid objects upon it get more and more warm, and the air which is heated by them is at that time consequently genial and soft, from whatever direction the wind may blow ; more so, indeed, when it comes in from the neighbouring land than when it arrives from the sea. But when the day is short, and the sun shines feebly and slantingly from a low altitude,

for a very few hours at most, the ground gets colder and colder, and the wind is only warmed if it has been blowing over the southern and western sea. It fortunately happens in England that in winter time the wind does blow in from the warm sea more often than from the opposite quarters, and on this account the winters in England are very much more mild than they are in many other parts of the earth situated at about the same distance from the regions of torrid heat. The winters of England are softened by a sort of hot water apparatus provided and worked by the sunshine. Extreme cold and frost and snow are only experienced in English winters when a strong wind blows in, for a long period at a time, from the colder regions that then lie towards the north and the east.

Frost and snow only occur when these cold winds have been blowing in long enough to chill the whole mass of the air, which is drifting along in immediate contact with the ground, down below the temperature at which water is fixed into solid ice. Snow appears when the vapour of the air is chilled out of it in the form of little entangled needles of ice, grouped together as "flakes," instead of in the form of rain-drops.

The "Thermometer," or instrument constructed for measuring heat, at once shows the change of the temperature of the air, according as the wind blows from warm or from cold portions of the earth. The thermometer which is most used in England, and which is known as Fahrenheit's, has its scale so arranged that the quicksilver, or coloured spirit, stands at 32° when it is surrounded by water just freezing into ice or snow; and at 212° when the water is on the point of boiling, or just passing into steam. The intervening space is divided on the scale into a hundred and eighty equal

parts, grades, or degrees, of which the 55th degree indicates the heat at which air is "temperate," or neither very hot nor very cold, and the 76th degree the ordinary warmth of a pleasant summer. The natural heat of the human body, according to the scale of this thermometer, is 98°. The greatest heat of the air, in such fiercely hot climates as that of India, is 140°.

In the "Barometer," which measures the weight or "pressure" of the air, the quicksilver rises higher in the long air-emptied glass tube, when it is pressed up by a heavier atmosphere acting in the opposite direction upon the outer quicksilver-surface in the cistern below, and falls in the tube when the pressure of the atmosphere upon the outer surface of the cistern is less. The quicksilver of the barometer is thus falling, as a general rule, when a warm, light wind is blowing in, and it is rising when the wind is heavy, and comes from a cold direction. A falling barometer commonly foretells rain, because a warm, moist air is at the time coming into a colder place, ready to have its moisture chilled out of it. A rising barometer, on the other hand, is a sign of dry weather, because an inflow of a cold, dry wind accompanies and is the immediate cause of the rise. If the fall of the quicksilver be very rapid, as well as very great, there is sure to be strong wind as well as falling rain. A slowly but continually rising barometer is, on the other hand, an equally reliable promise of fine, dry weather; because its movement is due to the inflow of a gentle, dry wind, prepared to drink up, rather than to deposit, moisture.

Dr. Mann, 'Simple Lessons for Home and School Use.'

(Stanford.)

Torrid.—Parched. *Lat. torreo*, to roast.

Zone.—A belt, a girdle.

Rotate.—To turn round like a wheel on its axle. *Lat. rota,* a wheel.

Alternate.—One following the other.

Genial.—Pleasant, kindly.

LESSON XIV.

THE EXECUTION OF MARY QUEEN OF SCOTS.

THE unfortunate queen having been informed by the Earl of Shrewsbury that she was to die "about eight o'clock on the morning of the morrow," on that nobleman's retiring, devoted her few last hours to consoling her servants and making her will.

It was near two o'clock in the morning when she had finished writing. Feeling somewhat fatigued, and wishing to preserve or restore her strength for the final moment, she went to bed. Her women continued praying; and, during this last repose of her body, though her eyes were closed, it was evident, from the slight motion of her lips, and a sort of rapture spread over her countenance, that she was addressing herself to Him on whom alone her hopes now rested. At day-break she arose, saying that she had only two hours to live. She picked out one of her handkerchiefs, with a fringe of gold, as a bandage for her eyes on the scaffold, and dressed herself with a stern magnificence. Having assembled her servants, she made Bourgoyn, her physician, read over to them her will, which she then signed; and afterwards gave them the letters, papers, and presents, of which they were to be the bearers to the princes of her family and her friends on the

Continent. She had already distributed to them, on the previous evening, her rings, jewels, furniture, and dresses; and she now gave them the purses which she had prepared for them, and in which she had enclosed, in small sums, the five thousand crowns which remained over to her. With finished grace, and with affecting kindness, she mingled her consolations with her gifts, and strengthened them for the affliction into which her death would soon throw them. "You could not see," says an eye-witness, "any change, either in her face, or in her speech, or in her general appearance; she seemed to be giving orders about her affairs just as if she were merely going to change her residence from one house to another."

She now retired to her oratory, where she was for some time engaged in reading the prayers for the dead. A loud knocking at the door interrupted these funeral orisons; she bade the intruders wait a few minutes.

"Shortly afterwards, eight o'clock having struck, there was a fresh knocking at the door, which this time was opened. The sheriff entered, with a white wand in his hand, advanced close to Mary, who had not yet moved her head, and pronounced these few words: 'Madam, the lords await you, and have sent me to you.' 'Yes,' replied Mary, rising from her knees, 'let us go.' Just as she was moving away, Bourgoin handed to her the ivory crucifix which stood on the altar; she kissed it, and ordered it to be carried before her. Not being able to support herself alone, on account of the weakness of her limbs, she walked, leaning on two of her own servants, to the extremity of her apartments. Having arrived at that point, they, with peculiar delicacy, which she felt and approved, desired not to lead her themselves to execution, but

entrusted her to the support of two of Paulet's servants, and followed her in tears. On reaching the staircase, where the Earls of Shrewsbury and Kent awaited Mary Stuart, and by which she had to descend into the lower hall, at the end of which the scaffold had been raised, they were refused the consolation of accompanying her further. In spite of their supplications and lamentations they were separated from her; not without difficulty, for they threw themselves at her feet, kissed her hands, clung to her dress, and would not quit her. When they had succeeded in removing them, she resumed her course with a mild and noble air, the crucifix in one hand and a prayer-book in the other, dressed in the widow's garb, which she used to wear on days of great solemnity. She evinced the dignity of a queen, along with the calm composure of a Christian. At the foot of the staircase she met her house-steward, Andrew Melvil, who had been permitted to take leave of her, and who, seeing her thus walking to her execution, fell on his knees, and, with his countenance bathed in tears, expressed his bitter affliction. Mary embraced him, thanked him for his constant fidelity, and enjoined him to report exactly to her son all that he knew, and all that he was about to witness. 'It will be,' said Melvil, 'the most sorrowful message I ever carried, to announce that the queen, my sovereign and dear mistress, is dead.' 'Thou shouldst rather rejoice, good Melvil,' she replied, employing for the first time this familiar mode of address, 'that Mary Stuart has arrived at the close of her misfortunes. Thou knowest that this world is only vanity, and full of troubles and misery. Bear these tidings, that I die firm in my religion, a true Catholic, a true Scotch-woman, a true French-woman. May God forgive those who have

sought my death. The Judge of the secret thoughts and actions of men knows that I have always desired the union of Scotland and England. Commend me to my son, and tell him that I have never done anything that could prejudice the welfare of the kingdom, or his quality as king, nor derogated in any respect from our sovereign prerogative.'"

The sentence was then read to her. She made a short speech, in which she repeated the words so frequently in her mouth, "I am queen born, not subject to the laws," and declared that she had never sought the life of her cousin Elizabeth. She then began to recite in Latin the Psalms of penitence and mercy, a pious exercise rudely interrupted by the Dean of Peterborough and the Earl of Kent.

"Her prayer ended, she arose. The terrible moment had arrived, and the executioner approached to assist her in removing a portion of her dress, but she motioned him away, saying, with a smile, that she had never had such chamber-maids. She then called Jean Kennedy and Elizabeth Curll, who had remained all the time on their knees at the foot of the scaffold, and she began to undress herself with their assistance, remarking that she was not accustomed to do so before so many people. The afflicted girls performed this last sad office in tears. To prevent the utterance of their grief, she placed her finger on their lips, and reminded them that she had promised in their name that they would show more firmness. 'Instead of weeping, rejoice,' she said; 'I am very happy to leave this world, and in so good a cause.' She then laid down her cloak, and took off her veil, retaining only a petticoat of red taffety, flowered with velvet. Then seating herself on the chair, she gave her blessing to

her weeping servants. The executioner having asked her pardon on his knees, she told him that she pardoned everybody. She embraced Elizabeth Curll and Jean Kennedy, and gave them her blessing, making the sign of the cross over them; and after Jean Kennedy had bandaged her eyes, she desired them to withdraw, which they did weeping. At the same time she knelt down with great courage, and still holding the crucifix in her hands, stretched out her neck to the executioner. She then said aloud, and with the most ardent feeling of confidence, 'My God, I have hoped in you; I commit myself to your hands.' She imagined that she would have been struck in the mode usual in France, in an upright posture, and with the sword. The two masters of the works, perceiving her mistake, informed her of it, and assisted her to lay her head on the block, which she did without ceasing to pray. 'There was a universal feeling of compassion at the sight of this lamentable misfortune, this heroic courage, this admirable sweetness. The executioner himself was moved, and aimed with an unsteady hand; the axe, instead of falling on the neck, struck the back of the head, and wounded her; yet she made no movement, nor uttered a complaint. It was only on repeating the blow that the executioner struck off her head, which he held up, saying, 'God save Queen Elizabeth.' 'Thus,' added Dr. Fletcher, 'may all her enemies perish.'"

Mignet's 'History of Mary Queen of Scots.'

Oratory.—A room set apart for religious devotions. *Lat. oro*, to pray.

Orisons.—Prayers.

Derogate.—To do anything that implies a surrender of rights or dignity.

Prerogative.—Special privilege. More particularly, the rights of the Crown.

LESSON XV.

MARY QUEEN OF SCOTS.

I LOOK'D far back into other years, and lo! in bright array
I saw, as in a dream, the forms of ages pass'd away.

It was a stately convent, with its old and lofty walls,
And gardens with their broad green walks, where soft the
footstep falls ;

And o'er the antique dial-stones the creeping shadow pass'd,
And all around the noon-day sun a drowsy radiance cast.

No sound of busy life was heard, save from the cloister dim,
The tinkling of the silver bell, or the sisters' holy hymn.
And there five noble maidens sat beneath the orchard trees,
In that first budding spring of youth, when all its prospects
please ;

And little reck'd they, when they sang, or knelt at vesper
prayers,

That Scotland knew no prouder names—held none more dear
than theirs :—

And little even the loveliest thought, before the holy shrine,
Of royal blood and high descent from the ancient Stuart line :
Calmly her happy days flew on, uncounted in their flight,
And as they flew, they left behind a long-continuing light.

The scene was changed. It was the court, the gay court of
Bourbon,

And 'neath a thousand silver lamps a thousand courtiers throng :
And proudly kindles Henry's eye—well pleased, I ween, to see
The land assemble all its wealth of grace and chivalry :—
But fairer far than all the rest who bask on fortune's tide,
Effulgent in the light of youth, is she, the new-made bride !
The homage of a thousand hearts—the fond deep love of one—
The hopes that dance around a life whose charms are but
begun,—

They lighten up her chestnut eye, they mantle o'er her cheek,
They sparkle on her open brow, and high-soul'd joy bespeak :
Ah ! who shall blame, if scarce that day, through all its brilliant
hours,

She thought of that quiet convent's calm, its sunshine and its
flowers ?

The scene was changed. It was a bark that slowly held its way,

And o'er the lee the coast of France in the light of evening lay ;
 And on its deck a lady sat, who gazed with tearful eyes
 Upon the fast-receding hills, that dim and distant rise.
 No marvel that the lady wept,—there was no land on earth
 She loved like that dear land, although she owed it not her
 birth ;

It was her mother's land, the land of childhood and of friends,—
 It was the land where she had found for all her grief amends,—
 The land where her dead husband slept—the land where she
 had known

The tranquil convent's hush'd repose, and the splendours of a
 throne ;

No marvel that the lady wept,—it was the land of France—
 The chosen home of chivalry—the garden of romance !
 The past was bright, like those dear hills so far behind her
 bark ;

The future, like the gathering night, was ominous and dark !
 One gaze again—one long, last gaze—"Adieu, fair France, to
 thee !"

The breeze comes forth—she is alone on the unconscious sea !

The scene was changed. It was an eve of raw and surly mood,
 And in a turret-chamber high of ancient Holyrood
 Sat Mary, listening to the rain, and sighing with the winds
 That seemed to suit the stormy state of men's uncertain minds.
 The touch of care had blanch'd her cheek—her smile was sadder
 now,

The weight of royalty had press'd too heavy on her brow ;
 And traitors to her councils came, and rebels to the field ;
 The Stuart sceptre well she sway'd, but the sword she could not
 wield.

She thought of all her blighted hopes—the dreams of youth's
 brief day,

And summoned Rizzio with his lute, and bade the minstrel play
 The songs she loved in early years—the songs of gay Navarre,
 The songs perchance that erst were sung by gallant Chatelar ;
 They half beguiled her of her cares, they soothed her into smiles,
 They won her thoughts from bigot zeal and fierce domestic
 broils :—

But hark! the tramp of armed men! the Douglas' battle-cry!
They come—they come!—and lo! the scowl of Ruthven's hollow
eye!

And swords are drawn, and daggers gleam, and tears and words
are vain—

The ruffian steel is in his heart—the faithful Rizzio's slain!

Then Mary Stuart dash'd aside the tears that trickling fell:

“Now for my father's arm!” she said; “my woman's heart
farewell!”

The scene was changed. It was a lake, with one small lonely
isle,

And there, within the prison walls of its baronial pile,
Stern men stood menacing their queen, till she should stoop to
sign

The traitorous scroll that snatch'd the crown from her ancestral
line:—

“My lords, my lords!” the captive said, “were I but once more
free,

With ten good knights on yonder shore to aid my cause and me,
That parchment would I scatter wide to every breeze that blows,
And once more reign a Stuart-queen o'er my remorseless foes!”
A red spot burn'd upon her cheek—stream'd her rich tresses
down,

She wrote the words—she stood erect—a queen without a crown!

The scene was changed. A royal host a royal banner bore,
And the faithful of the land stood round their smiling queen
once more:—

She stay'd her steed upon a hill—she saw them marching by—

She heard their shouts—she read success in every flashing eye.

The tumult of the strife begins—it roars—it dies away;

And Mary's troops and banners now, and courtiers—where are
they?

Scatter'd and strewn, and flying far, defenceless and undone;—

Alas! to think what she has lost, and all that guilt has won!

Away! away! thy gallant steed must act no laggard's part;

Yet vain his speed—for thou dost bear the arrow in thy heart!

The scene was changed. Beside the block a sullen headsman
stood,

And gleam'd the broad axe in his hand, that soon must drip
with blood.

With slow and steady step there came a lady through the hall,
And breathless silence chain'd the lips and touch'd the hearts of
all.

I knew that queenly form again, though blighted was its bloom,
I saw that grief had deck'd it out—an offering for the tomb!

I knew the eye, though faint its light, that once so brightly
shone;

I knew the voice, though feeble now, that thrill'd with every
tone;

I knew the ringlets, almost grey, once threads of living gold!

I knew that bounding grace of step—that symmetry of mould!

E'en now I see her far away, in that calm convent aisle,

I hear her chant her vesper hymn, I mark her holy smile;

E'en now I see her bursting forth upon the bridal morn,

A new star in the firmament, to light and glory born!

Alas! the change!—she placed her foot upon a triple throne,

And on the scaffold now she stands—beside the block—*alone!*

The little dog that licks her hand—the last of all the crowd

Who sunn'd themselves beneath her glance, and round her
footsteps bow'd.

Her neck is bared—the blow is struck—the soul is pass'd away!

The bright—the beautiful—is now a bleeding piece of clay!

The dog is moaning piteously; and, as it gurgles o'er,

Laps the warm blood that trickling runs unheeded to the floor!

The blood of beauty, wealth, and power—the heart-blood of a
queen,—

The noblest of the Stuart race—the fairest earth has seen,—

Lapp'd by a dog! Go, think of it, in silence and alone!

Then weigh against a grain of sand the glories of a throne!

BELL.

Antique.—Old-looking. *Lat. antiquus*, old.

Cloister.—A convent. *Lat. claudo*, to shut.

Vesper.—Evening.

Effulgent.—Shining out. *Lat. fulgeo*, to shine.

Ominous.—Threatening, full of gloomy omens.

Erst.—Formerly.

Remorseless.—Pitiless. *Lat. mordeo*, to bite.

Laggard.—One who lags or stays behind.

LESSON XVI.

THE SPANISH ARMADA.

THE spirit of bigotry and tyranny, by which Philip II. of Spain, formerly wedded to Mary, Queen of England, was actuated, with the fraudulent maxims which governed his counsels, excited the most violent agitation among his own people, engaged him in acts of the greatest cruelty, and threw all Europe into alarm. He had long harboured a secret and violent desire of revenge against Queen Elizabeth, to execute which he formed the plan of an invasion of England, by fitting out his invincible armada.

Many circumstances contributed to his hatred of Elizabeth. The rejection of his hand on the death of her sister; her support of the Protestant cause; the great and decisive part that she embraced to prevent his oppression of the Netherlands; and her successes in Spanish America; these circumstances excited the jealousy of Philip, and induced him to believe that, by her subjection, he should acquire the renown of reuniting the whole Christian world in the Catholic communion.

At this period Spain was rich and populous. Philip had lately annexed the kingdom of Portugal to his dominions.

All the princes of Italy, even the pope and the court of Rome, were reduced to a kind of subjection under him, and seemed to possess their sovereignty on terms somewhat precarious. The Austrian branch in Germany, with its dependent principalities, was closely connected with him, and was ready to supply him with troops for every enterprise.

Three years had been spent by Philip in secretly

making great preparations for this enterprise. The project, indeed, was formed after the Queen of Scots had been persuaded to make over to him her right to England, as being the only plan to restore there the Catholic religion. Besides this vague right, conveyed by will, he thought he might justly claim the crown of England as being the next Catholic prince descended, by the female line, from the Duke of Lancaster, fourth son of Edward III. Pope Sixtus IV., not less ambitious than Philip, excited him to the invasion of England. He again excommunicated the queen. All the ports of Spain resounded with preparations for this alarming expedition; and the Spaniards seemed to threaten the English with a total annihilation.

The fleet, which, on account of its prodigious strength, was called "the Invincible Armada," was completed in 1588.

The English fleet at this time consisted only of twenty-eight sail, most of which were very small vessels; but the alacrity of Elizabeth's subjects sufficiently atoned for the weakness of her navy. The maritime towns, the nobility and gentry, testified the greatest zeal on this occasion. The city of London fitted out thirty ships, though fifteen only had been required. The gentry and nobility hired and armed forty-three ships, at their own expense. Lord Howard, of Effingham, a man of great courage and capacity, was Lord Admiral, and took upon him the command of the navy. Drake, Hawkins, and Frobisher, the most renowned seamen in Europe, served under him. The main fleet was stationed at Plymouth, while a smaller fleet, consisting of forty vessels, under the command of Lord Seymour, lay off Dunkirk, in order to intercept the forces commanded by the Duke of Parma.

Twenty thousand land forces were cantoned along the southern coasts of England; another body of disciplined troops encamped at Tilbury, near the mouth of the Thames, under the command of the Earl of Leicester, whom the queen, on this occasion, created general in chief of all her forces; and the Lord Hunsden commanded a third army, consisting of thirty thousand men, for the defence of her majesty's person, and to march to that part of the coast on which the enemy might make their chief landing.

The chief hopes of Elizabeth were placed in the affections of her people. Party distinctions were forgotten, and every man exerted himself in the defence of his country.

The magnanimity of Elizabeth was remarkable on this trying occasion. She appeared on horseback in the camp of Tilbury, harangued her army, and expressed an entire confidence in their loyalty and courage. The following was her truly noble speech on this occasion :—

“My loving people, we have been persuaded, by some that are careful of our safety, to take heed how we commit ourselves to armed multitudes, for fear of treachery; but I assure you I do not desire to live to distrust my faithful and loving people. Let tyrants fear; I have always so behaved myself, that, under God, I have placed my chiefest strength and safe-guard in the loyal hearts and good will of my subjects. And therefore I am come amongst you, at this time, not as for my recreation or sport, but being resolved, in the midst and heat of the battle, to live or die amongst you all; to lay down for my God, and for my people, my honour and my blood, even in the dust.

“I know I have but the body of a weak and feeble

woman ; but I have the heart of a king, and of a king of England too ; and I think it foul scorn, that Parma or Spain, or any prince of Europe, should dare to invade the borders of my realms : to which, rather than any dishonour shall grow by me, I myself will take up arms : I myself will be your general, judge, and rewarder of every one of your virtues in the field.

"I know already, by your forwardness, that you have deserved rewards and crowns ; and we do assure you, on the word of a prince, they shall be duly paid you.

"In the mean time, my lieutenant-general shall be in my stead ; than whom never prince commanded a more noble and worthy subject ; not doubting, by your obedience to my general, by your concord in the camp, and your valour in the field, we shall shortly have a famous victory over those enemies of my God, of my kingdom, and of my people."

The armada was some time prevented from sailing, by the death of the Marquis of Santa Cruz. The Duke of Medina Sidonia, a nobleman of great family, but wholly unacquainted with maritime affairs, was appointed admiral in his room. This interval was employed by Elizabeth in making new preparations for rendering the design abortive.

At length the invincible fleet sailed from Lisbon on the 29th of May ; but being overtaken with a dreadful tempest, it was obliged to put into the Groyne, having received considerable damage.

After a delay of two months, the armada sailed once more to prosecute the intended enterprise. The fleet consisted of 130 ships, of which near 100 were galleons and of a greater burden than had ever before appeared on the coast of England.

The armada advanced towards Plymouth. It was

disposed in the form of a half-moon, and stretched to the distance of seven leagues from the extremity of one division to the other. But this appearance dismayed not the English; they knew their huge vessels were so ill-constructed, and so difficult to be managed, that they would not be able to support themselves against the repeated attacks of ships at a distance.

Two of the largest ships in the Spanish fleet were soon after taken by Sir Francis Drake; and, while the enemy advanced slowly up the Channel, the English followed their rear, and harassed them with perpetual skirmishes. The Spaniards now began to abate in their confidence of success; the design of attacking the English navy in Plymouth was laid aside, and they directed their course towards Calais.

The armada, after many losses, came to an anchor before Calais, in the expectation of being joined by the Prince of Parma; but before that general could embark his troops, all hope of success vanished, by a stratagem of the English admiral. He filled eight of his smaller ships with combustible materials, and, setting them on fire, sent them, one after another, into the midst of the enemy's fleet. Terrified at this appearance, the Spaniards cut their cables, and betook themselves to flight, in a very precipitous and disorderly manner. In the midst of this confusion, the English fell upon them with such fury, that twelve of their largest ships were taken, and several others were thoroughly damaged.

The ambitious Spaniards were now convinced that their scheme was entirely frustrated, and would willingly have abandoned the enterprise, and returned immediately to their ports, could they have done it with safety; but this was impossible; the wind was

contrary, and the only chance of escaping was that of making a tour of the whole island, and reaching at last the Spanish harbours by the ocean; but a violent storm soon overtook them, and completed the destruction of the Invincible Armada; not half the vessels returned to the ports of Spain.

Of the armada there were taken and destroyed in the Channel 15 ships, and 4791 men; and on the coast of Ireland 17 ships, and 5394 men: in all 32 ships, and 10,185 men.

'The Plain Englishman.'

Bigotry.—A disposition to force one's own views upon other people.

Tyranny.—Arbitrary or despotic exercise of power. *Gr. turannos*, an absolute sovereign.

Fraudulent.—Dishonest. *Lat. fraus*, fraud.

Precarious.—Doubtful, uncertain.

Vague.—Uncertain.

Annihilation.—Destruction. *Lat. nihil*, nothing.

Canton.—To distribute in small bodies.

Magnanimity.—Great-mindedness. *Lat. magnus*, great; *animus*, mind.

Harangue.—To address.

Abortive.—Productive of no result.

Stratagem.—An artifice, a manœuvre.

Frustrate.—To render useless, to defeat. *Lat. frustra*, in vain.

LESSON XVII.

KILLED AT THE FORD.

He is dead, the beautiful youth,
The heart of honour, the tongue of truth,—
He, the light and life of us all,
Whose voice was blithe as a bugle call.
Whom all eyes followed with one consent,
The cheer of whose laugh, and whose pleasant word,
Hushed all murmurs of discontent.

Only last night as we rode along,
Down the dark of the mountain gap,
To visit the picket-guard at the ford,
Little dreaming of any mishap,
He was humming the words of some old song :
" Two red roses he had on his cap,
And another he bore at the point of his sword."

Sudden and swift a whistling ball
Came out of a wood, and the voice was still,
Something I heard in the darkness fall,
And for a moment my blood grew chill ;
I spake in a whisper, as he who speaks
In a room where some one is lying dead ;
But he made no answer to what I said.

We lifted him up on his saddle again,
And through the mire, and the mist, and the rain,
Carried him back to the silent camp,
And laid him as if asleep on his bed ;
And I saw by the light of the surgeon's lamp
Two white roses upon his cheeks,
And one just over his heart blood red.

And I saw in a vision how far and fleet
That fatal bullet went speeding forth,
Till it reached a town in the distant North,—
Till it reached a house in a sunny street,—
Till it reached a heart that ceased to beat
Without a murmur, without a cry ;
And a bell was tolled in that far-off town,
For one who had passed from cross to crown,—
And the neighbours wondered that she should die.

LONGFELLOW.

LESSON XVIII.

A GREAT GEYSER.

LATE in the afternoon it began to rain heavily, and, amid the usual discomforts attending on a wet camp, we pitched our tents in a small grove of trees close to the "Castle Geyser." This geyser is situated on an irregular platform of deposit, measuring 100 feet in length by 70 feet in diameter, and, at the centre, being 3 feet above the level of the plain. About the middle of this platform rises the active chimney, a cone of 11 feet 11 inches in height, having an aperture 3 feet in diameter, almost circular in form, and measuring 120 feet in circumference at the base, and 60 feet at the top. It does not taper gradually, nor is the exterior surface smooth; but it is irregular in contour, forming a series of rough steps by which you can climb to the top. The lips and interior of the funnel are lined with large, globular, orange-coloured masses.

Quite close to the crater are two pools simmering and bubbling, which share in the excitement consequent on an eruption, becoming dry when the "Castle" is in operation.

There is also a third very lovely pool, about 30 feet in diameter and 60 feet deep, with an aperture at the bottom that looks so profound that you might almost fancy it went right through to the other side. The inner lining is of perfectly pure white silica, and the edges are scalloped and ornamented with the usual pearl-like mouldings. But the most noticeable thing about it is the perfect purity and transparency of the water, which is so still, so blue, so clear, that you

scarcely know where the surface is, can hardly tell which is air and which is water; indeed, you involuntarily stoop and plunge your hand into it to convince yourself that that translucent element is in reality water. Many of my readers may have seen on the western shores of Scotland or Ireland, on some fine summer's day when the Atlantic dozes in the warm sun, clear, deep pools left by the receding tide. Beautiful they are with the rich golden browns of the sea-rack that streams upwards to the light; the delicate pinks and greens of the sea-weed that fringes the rim; the bright or subdued colouring of anémones, sea-urchins, and shells. Somewhat like them, but much more perfect in shape, variety, and intensity of colouring, and above all in purity, are these fresh-water pools.

When we arrived the "Castle" was placidly smoking. Far down in the depths of the funnel an indistinct rumbling could be heard; but it seemed quite inactive. However, a couple of men, belonging to another party, who had been there some days, told us that they expected it to spout about eleven at night; so we set to work to make ourselves comfortable in camp.

Scarcely had we got things fixed and supper under weigh, when a yell from Boteler, "He's going to spout!" caused us to drop teapot and pannikin, and tumble out of the tent in half no time.

It was getting dark, but there was quite enough light to see that the fit was upon the imprisoned monster. We ran upon the platform, close to the crater, but were very soon driven from that position and forced to look on humbly from a distance.

Far down in his bowels a fearful commotion was going on; we could hear a great noise—a rumbling as of thousands of tons of stones rolling round and round,

piling up in heaps and rattling down again, mingled with the lashing of the water against the sides as it surged up the funnel and fell again in spray. Louder and louder grew the disturbance, till with a sudden qualm he would heave out a few tons of water and obtain momentary relief. After a few premonitory heaves had warned us to remove to a little distance, the symptoms became rapidly worse; the row and the racket increased in intensity; the monster's throes became more and more violent; the earth trembled at his rage; and finally, with a mighty spasm, he hurled into the air a great column of water.

I should say that this column reached at its highest point of elevation an altitude of 250 feet. The spray and steam were *driven* through it up to a much greater elevation, and then *floated* upward as a dense cloud to any distance. The operation was not continuous, but consisted of strong, distinct pulsations, occurring at a maximum rate of seventy per minute, having a general tendency to increase gradually in vigour and rapidity of utterance until the greatest development of strength was attained, and then sinking again by degrees. But the increase and subsidence were not uniform or regular; the jets arose, getting stronger and stronger at every pulsation for ten or twelve strokes, until the effort would culminate in three impulses of unusual power.

The column of water appeared quite perpendicular, and was constantly ascending, for long before one jet had attained its greatest elevation, another had been forced through the aperture; but in the column the different efforts were plainly visible. The volume of water ejected must have been prodigious; the spray descended in heavy rain over a large area, and torrents

of hot water six or eight inches deep poured down the sloping platform.

The noise of the eruption was indescribable. I know of but one simile drawn from Nature that conveys the smallest impression of it, and even then the impression is quite inadequate to illustrate the subject. Have you ever sat upon the very verge of a steep sea-cliff in a gale? I do not mean one of your yachtsman's breezes, but a real genuine full winter's gale of wind, roaring from the north-west over leagues and leagues of white Atlantic, and striking full against the cliff-face. If you have, you will know that there is at the edge a little space of complete calm, where the sea-pinks are scarcely stirred, and where you can sit and listen to the awful riot around you, untouched by it. If you will sit there, and are unaccustomed to such a scene, you will be half deafened and quite frightened by the strife of wind and rock and sea. Hear with what tremendous blows the gale strikes against the bold front of cliff and flies hoarsely howling with rage just over your head! Listen to its vicious scream, as, baffled, it beats against the crags, and shrieks shrilly round some jutting rock! The ground seems to shake under the shock and thunder of the breakers against its base; and under all you will note the continuous hollow roar of the pebble bank crumbling to the sea with each receding wave. To all these sounds of elemental war, add the shrieking of the steam-pipes of many steamers blowing off, and you will have some idea of an eruption of the "Castle."

Or, if you don't know much about the sea, you may imagine a gigantic pot boiling madly with a thunder-storm in its stomach, and half full of great stones rolling and knocking about against its reverberating sides. Taken with the above-mentioned steam-pipe accompani-

ment, which is indispensable, this may convey a faint idea of the noise.

The total display lasted about an hour. Water was ejected for twenty minutes, and was then succeeded by steam, which was driven out with much violence and in great quantities. Like the water, it was expelled in regular beats, increasing in rapidity as the jet decreased in strength until the pulsations merged into one continuous hoarse roar, which gradually but fitfully subsided, and the exhausted geyser sank back into complete repose.

To enjoy such a sight as this, a man should have time to get a little accustomed to it, for the display of such stupendous force exhibited in such an unusual manner is, to say the least of it, startling.

In our case, the grandeur and awfulness of the scene were intensified by the darkness, for before the eruption ceased night had fallen, and obscurity enshrouding the plain rendered even common objects unnatural and strange. From out a neighbouring vent white puffs of steam were forced, which, bending forward in the light breeze, crept slowly past the mound, looking in the dark like sheeted ghosts stooping under the burden of their crimes. The grey plain, and the naked pines stretching out their bared arms menacingly like warning spirits, showed ghastly in the half-light; and with these accompaniments of darkness and novelty and amid a confused noise and concussion of the atmosphere, and shocks and tremblings of the earth, this great geyser was exhibiting a spectacle entirely new and strange to all of us except one of the party.

Earl of Dunraven's 'Great Divide.'

Aperture.—Opening. *Lat. aperio*, to open.

Contour.—Outline.

Scalloped.—Indented like a scallop-shell.

Translucent.—Admitting the passage of light. *Lat. luceo, to shine.*

Premonitory.—Warning beforehand.

Spasm.—Convulsion.

Pulsations.—Beats.

Culminate.—To reach an extreme. *Lat. culmen, top, or ridge.*

Simile.—A likeness, resemblance.

Elemental.—Relating to the elements, particularly to the air.

Reverberate.—To re-echo.

Enshroud.—To cover as with a shroud.

LESSON XIX.

DEATH OF LEÓNIDAS.

It was the wild midnight,—a storm was in the sky,
The lightning gave its light, and the thunder echo'd by;
The torrent swept the glen, the ocean lashed the shore,—
Then rose the Spartan men, to make their bed in gore!

Swift from the deluge ground three hundred took the shield;
Then, silent, gather'd round the leader of the field.
He spoke no warrior-word, he bade no trumpet blow;
But the signal thunder roar'd, and they rush'd upon the foe.

The fiery element show'd, with one mighty gleam,
Rampart and flag and tent, like the spectres of a dream;
All up the mountain side, all down the woody vale,
All by the rolling tide, waved the Persian banners pale.

And King Leonidas, among the slumbering band,
Sprang foremost from the pass, like the lightning's living brand;
Then double darkness fell, and the forest ceased to moan,
But there came a clash of steel, and a distant dying groan.

Anon a trumpet blew, and a fiery sheet burst high,
That o'er the midnight threw a blood-red canopy:
A host glared on the hill, a host glared by the bay;
But the Greeks rush'd onward still, like leopards in their play.

The air was all a yell, and the earth was all a flame,
Where the Spartans' bloody steel on the silken turbans came;
And still the Greeks rush'd on, beneath the fiery fold,
Till, like a rising sun, shone Xerxes' tent of gold.

They found a royal feast, his midnight banquet, there!
And the treasures of the East lay beneath the Doric spear:
Then sat to the repast the bravest of the brave;
That feast must be their last—that spot must be their grave!
They pledged old Sparta's name in cups of Syrian wine,
And the warrior's deathless fame was sung in strains divine;
They took the rose-wreathed lyres from eunuch and from slave,
And taught the languid wires the sounds that freedom gave.

But now the morning star crown'd Cæta's twilight brow,
And the Persian horn of war from hill began to blow;
Up rose the glorious rank, to Greece one cup pour'd high,
Then, hand, in hand, they drank—"To Immortality!"

Fear on King Xerxes fell, when, like spirits from the tomb,
With shout and trumpet-knell, he saw the warriors come;
But down swept all his power, with chariot and with charge,—
Down pour'd the arrowy shower, till sank the Dorian targe.
They march'd within the tent, with all their strength unstrung;
To Greece one look they sent, then on high their torches flung:
To heaven the blaze uproll'd, like a mighty altar-fire;
And the Persians' gems and gold were the Grecians' funeral
pyre.

Their king sat on his throne, his captains by his side,
While the flame rush'd roaring on, and their pæan loud replied!
Thus fought the Greek of old! Thus will he fight again!
Shall not the self-same mould bring forth the self-same men!

CROLY.

Rampart.—A fortification.

Brand.—A sword. *Old Eng.* brennan, to burn. Compare fire-brand.

Canopy.—A covering.

Repast.—A meal.

Lyre.—A stringed-instrument.

Pyre.—A fire for consuming human remains.

Pæan.—A triumph-song.

LESSON XX.

THE WONDERS OF THE YELLOWSTONE.

It is quite impossible for anyone to do justice to the remarkable physical phenomena of the valley of the Yellowstone by any description, however vivid. It is only through the eye that the mind can form anything like an adequate conception of their beauty and grandeur. Opposite our camp were the Yellowstone mountains, with peaks rising 12,000 feet above the sea-level, and 6000 feet above the valley. For beauty and symmetry of outline I have never seen this range equalled in the Far West.

Granite walls rise on either side to the height of a thousand feet or more, and through the narrow gorge the river dashes with great velocity. The bright green colour of the water, and the numerous ripples, capped with white foam, as the roaring torrent rushes around and over the multitude of rocks that have fallen from above into the channel, give a most picturesque view to the eye as we look from our lofty heights. But we cannot linger here, although the scenery is very attractive, so we hasten on to the Devil's Slide, or Cinnabar Mountain, as it is usually called.

It is one of the singular freaks of nature which occurs very seldom in the West; and is formed of alternate beds of sandstone, limestone, and quartzite, elevated to a nearly vertical position by those internal forces which acted in ages past to lift the mountain ranges into their present heights. Ridge after ridge extends down the steep sides of the mountain like lofty walls, the intervening softer portions having

been washed away, leaving the harder layers projecting far above. At one locality the rocks incline in every possible direction, and are crushed together in the utmost confusion. Between the walls at one point is a band of bright brick-red clay, which has been mistaken for cinnabar, and hence the name of the mountain.

On the evening of the third day, as we came to the junction of Gardiner's River, the warm springs began to appear near the edge of the stream. Before us arose a high white mountain, looking precisely like a frozen cascade. It is formed by the calcareous sediment of the hot springs, precipitated from the water as it flows down the steep declivities of the mountain side. The upper portion is about one thousand feet above the waters of Gardiner's River. The surface covered with the deposit comprises from three to four square miles. The springs now in active operation cover an area of about one square mile, while the rest of the territory is occupied by the remains of springs which have long since ceased to flow.

We pitched our camp upon a grassy terrace at the base of the principal group of active springs. Just in the rear of us was a series of reservoirs or bathing pools, rising one above another, semicircular in form, with scalloped margins composed of calcareous matter, the sediment precipitated from the water of the spring. The hill, which is about two hundred feet high, presents the appearance of water congealed by frost as it quickly flows down a rocky declivity. The deposit is as white as snow, except when tinged here and there with iron or sulphur.

Small streams flow down the sides of the snowy mountain, in channels lined with oxide of iron coloured

with the most delicate tints of red. Others present the most exquisite shades of yellow, from a deep bright sulphur to a dainty cream colour. In the springs and in the little channels is a material like the finest Cashmere wool, with its slender fibres floating in the water, vibrating with the movement of the current, and tinged with various shades of red and yellow, as bright as those of our aniline dyes.

The water, after rising from the spring-basins flows down the sides of the declivity, step by step, from one reservoir to the other, at each one of them losing a portion of its heat, until it becomes as cool as spring-water. These natural basins vary somewhat in size, but many of them are about four by six feet in diameter, and one to four feet in depth.

The level or terrace upon which the principal active springs are located, is about midway up the sides of the mountain, covered with the sediment. Still farther up are the old ruins of what must have been at some period of the past even more active springs than any at present known. The sides of the mountain, for two or three hundred feet in height, are covered with a thick crust of the calcareous deposit, which was originally ornamented with the most elegant sculpturing all over the surface, like the bathing pools below. But atmospheric agencies, which act readily on the lime, have obliterated all their delicate beauty.

The scenery in the vicinity of these hot springs is varied and beautiful beyond description. I have already stated that they are situated 1000 feet above the channel of the Yellowstone, and thus command a very extended view up and down the valley. To the north, the Devil's Slide can be distinctly seen, while

on either side the mountains rise to the height of 2000 feet, inclosing the valley as with gigantic walls. From the summit, still higher, piercing the clouds, are numerous basaltic peaks, presenting a great variety of unique forms. To the eastward is a bluff wall composed of 1200 to 1500 feet of strata, revealing one of the most perfect geological sections observed in the West. On the summit is a thick cap of basalt which extends up Gardiner's River, and forms the floor over which the waters of the east, middle, and west forks of that stream flow, and dash down in most beautiful cascades.

In the sides of the cañons of these branches are rows of basaltic columns as perfect as those so familiar to all who have visited Fingal's Cave in Staffa. In all my explorations in the Far West I have never seen such exquisite exhibitions of this semi-crystallized structure. Between the middle and west forks stands the dome-like form of Mount Everts, clothed with a dense growth of pines, its summit covered with fragments of basalt. From its top the view is grand, reaching over a radius of fifty to one hundred miles in every direction. On the west are the higher ranges of mountains about the sources of the Gallatin and Missouri forks, with their loftiest peaks covered with perpetual snow.

We must not linger here, however, amid these impressive scenes, but wind our way up the valley in search of more wonders. These will meet us in rapid transition from step to step. We can only stop a moment to glance at one of the greatest beauties of the valley—Tower Falls, or Tower Creek, where the water makes a vertical descent of 156 feet.

Near this point the Grand Cañon of the Yellowstone River commences, and continues about thirty

miles to the Great Falls. In some respects this cañon is the greatest wonder of all. The river has carved out a channel through the basalt volcanic breccia and hot spring deposits, one thousand to twelve hundred feet deep, and one to two thousand feet in width, at the bottom of which the water foams along with torrent-like rapidity. But the striking feature of this remarkable view is the effect of colours derived from the hot spring deposits, which have a brilliancy like the most delicate of our aniline dyes. None but an artist with a most delicate perception of colours could do justice to the picture.

About half a mile above the Falls on this creek the gorge is so narrow and deep that the traveller looks down from the margin above into an abyss so dark and forbidding that a very appropriate name comes almost involuntarily to one's lips—the "Devil's Den." The sides of the gorge are very rugged, composed of angular masses of basalt and obsidian, cemented with volcanic ashes. There is also a large amount of sulphur mingled with the ashes, so that the débris looks like the remains of an old furnace.

On either side of the river, as we ascend the valley, are remarkable groups of hot springs. They are of three kinds, but varying much in their active power: 1st, those in which the ebullition occurs only at intervals, and which may therefore be called intermittent springs; 2nd, such as are constantly boiling and bubbling up, therefore permanent springs; 3rd, those whose surface is always undisturbed, and in which there is no bubbling or boiling up. The first class reach the boiling-point only when in operation—when in a state of repose the temperature of the water is as low as 150°. The second class have a tempera-

ture equal to boiling water, or not far below it—in this region, varying from 180° to 196°.

But perhaps the most striking exhibition of Nature's forces in this wonderful region is that of the "Grand Geyser," which played only at intervals of about thirty-two hours; but when it was in active operation the display was grand beyond description. As we stood near the crater or basin, it threw up, with scarcely any preliminary warning, a column of hot water eight feet in diameter to the height of two hundred feet; and so steady and uniform did the force act, that the column of water appeared to be held there for some minutes, returning into the basin in millions of prismatic drops. This was continued for about fifteen minutes, and the rumbling and confusion attending it could only be compared to that of a charge in battle. The steam poured out in immense masses, rising in clouds a thousand feet or more in height.

Another geyser in the same group, named "Old Faithful," was far more accommodating, and played at intervals of only an hour, throwing up a column of water at least six feet in diameter and one hundred and fifty feet high, for a period of about fifteen minutes. The ease with which this column of water was sustained at the great height during the period of its operation rendered it a marvel of beauty as well as of power.

F. V. HAYDEN.

Adequate.—Suitable, capable of doing justice to.

Cinnabar.—A red pigment, the sulphuret of mercury.

Calcareous.—Limy. *Lat. calx*, lime.

Sediment.—The deposit which settles at the bottom. *Lat. sedeo*, to sit.

Aniline dyes.—Dyes obtained from coal-tar, such as mauve, magenta, &c.

Obliterate.—To blot out.

Basalt.—A mineral of volcanic origin.

Cañon.—A Spanish word denoting a deep rocky gorge worn away by water.

Breccia.—A kind of pudding-stone. Compare "break."

Obsidian.—A volcanic substance of a greenish colour.

Débris.—(Pronounce daybrée) ruins, fragments.

Ebullition.—Boiling.

Preliminary.—Beforehand. *Lat. præ*, before; *limen*, threshold.

LESSON XXI.

LIFE IN A WATER-DROP.

THE sun is reflected in the ocean as in the water-drop, and in both are called into existence beings the most varied in size and form. We admire the myriads of creatures which inhabit the depths of the ocean, from the monstrous whale to the tiniest specimen of the finny tribe. But if the size, the power, and the variety of the denizens of the deep excite our admiration, how much more do we find ourselves carried away by that feeling while looking into the water-drop!

Clear and transparent it lies before us; vainly our eye endeavours to discover the least evidence of life, or the smallest creature, in that which seems in itself too small to contain any living object; the breath of our mouth is strong enough to agitate it, and a few rays of the sun are sufficient to convert it into vapour. But we place this drop of water between two clean squares of glass, beneath the microscope, and lo! what life suddenly presents itself! We scarcely trust our senses. The little drop has expanded into a large plain; wonderful shapes rush backwards and forwards, drawing towards and repelling each other, or resting placidly and rocking themselves, as if they were

cradled on the waves of an extensive sea. These are no delusions; they are real, living creatures, for they play with each other, they rush violently upon one another, they whirl round each other, they free and propel themselves, and run from one place in order to renew the same game with some other little creature; or madly they precipitate themselves upon one another, combat and struggle until the one conquers and the other is subdued; or carelessly they swim side by side, until playfulness or rapacity is awakened anew. One sees that these little creatures, which the sharpest eye cannot detect without the aid of the microscope, are susceptible of enjoyment and pain; in them lives an instinct which induces them to seek, and enables them to find, sustenance, which points out and leads them to avoid and to escape the enemy stronger than themselves. Here one tumbles about in mad career and drunken lust, it stretches out its feelers, beats about its tail, tears its fellows, and is as frolicsome as if perfectly happy. It is gay, cheerful, hops and dances, rocks and bends about upon the little waves of the water-drop. There is another creature; it does not swim about—remains upon the same spot—but it contracts itself convulsively, and then stretches itself palpitatingly out again. Who could not detect in these motions the throes of agony; and so it is; for only just now it has freed itself from the jaws of a stronger enemy. The utmost power has it exerted in order to get away; but he must have had a tight hold, and severely wounded it, for only a few more throes, each becoming weaker and more faint, it draws itself together, stretches out its whole length once more, and sinks slowly to the bottom. It was a death struggle. It has expired.

On one spot a great creature lies, apparently quiet

and indifferent. A smaller one passes carelessly by, and, like a flash of lightning, the first dashes upon it. Vainly does the weaker seek to escape its more powerful enemy; he has already caught it, embraces it, the throes of the vanquished cease—it has become a prey.

This is only a general glance at the life in a water-drop, but how *great* does even this already show the *small*; how wondrously does everything shape itself within that, of which we had formerly not the least conception. These are creatures which nature nowhere presents to the eye upon an enlarged scale, so marvellous, odd, and also again so beautiful, so merry, happy in their whole life and movements; and although defective, and, in some respects, only one step removed from vegetable life, they are yet animated and possessed of will and power. It would be impossible here to give a description of all, or even of a great part of the ephëmerous world in all its varied aspects; but we propose to take a nearer survey of some few at least, in order to display the life which exists in a single drop of water taken from a pond.

Slowly and gracefully through the floods of this small drop of water comes glidingly, swimming along, the little swan animalcule, turning and twisting its long pliant neck, swaying itself comfortably, and moving in every direction, sucking whatever nourishment or prey may present itself. This animalcule has its name from its likeness to the swan. It carries its neck just as proudly and gracefully arched, only the head is wanting, for at the end there is a wide opening mouth, surrounded by innumerable beam-like lashes. The entire little creature is transparent, and it seems impossible that any species of nutriment could possibly pass through the thin throat, for even water seems too

coarse a material for this small tube ; but scarcely does one of the variously formed *monads* (single cells), which exist in all waters, and of which many thousands could move and tumble freely about in the hollow of a poppy seed, approach its mouth, ere we see the green, grey, or white monad gulped down, and gliding through the throat into the animalcule's little stomach. This monad is itself an animalcule, a living atom ; and possibly a still smaller animalcule serves for its nourishment ; but the human eye has not yet penetrated thus far, possibly it may never do so, for the Creator has hidden from the material vision of man the limits of His creating power, alike in the infinitely great as in the infinitesimally small.

Whirling along comes swimming by the side of the swan animalcule, the *Bell*. Here nature has retained a form out of the vegetable kingdom, for the body of this animalcule is similar to the bell-shaped blossom of a Mayflower fastened to a long stem. This stem, through which passes a spiral-formed vein, a fine dark tube, is easily moveable ; it closes itself together, screw-like, and stretches itself out again. This is the tail of the bell animalcule. At the end there is a little knot, and soon this knot becomes attached to the bottom, or to a blade of grass, or to a piece of wood, and the little animalcule is like a ship at anchor in a bay or harbour. Its tail extends and turns itself, and the body of the animalcule, the little bell, whose opening is at the top, begins to whirl itself round and round, and this movement is so quick and powerful that it creates, even in the billows of the water-drop, a whirlpool, which keeps ever going round wilder and more violently ; it grows to a *Charybdis*, which none of the little monads who are caught within it can escape ;—the whirlpool is too

fierce, they get drawn into it and find a grave in the jaws of the bell animalcule. The bell closes, the tail rolls together, but soon it stretches itself out, again; the bell whirls, the whirlpool goes round, and in it many a quiet and thoughtless passing monad is drawn down. But the bell animalcule is also about meeting its punishment. Again it whirls its bell violently—the tail breaks from the body, and the bell floats without control hither and thither on the waves of the water-drop; but it knows how to help itself. Nature has provided for such a catastrophe in its creation. The bell sinks to the bottom, and soon the missing tail grows again;—and if death even comes, nature has been so liberal in the creation of this little world—new life and new creatures arise so quickly out of those which have passed away, and so great is their number—that the death of one is less than a drop in the ocean, or a grain of sand in the desert of Sahara.

The lives of innumerable animalcules pass away at a breath; but they rise into existence in equally infinite numbers. The animalcules multiply in every variety of way; but the most curious is that of dividing, and out of the several parts new animalcules are formed, which, in a few hours, again divide themselves into parts, forming new creatures—and this process of increase proceeds to infinity. Numbers alone are able in some measure to give an idea of this infinite increasing power. An animalcule requires for its parting process about five hours, after which time the new creatures stand then perfect, and these again require the same time for their increase. At this rate of increase, one single animalcule would, by the process of separation, be increased to half a million in four days, and after a month it would be inconceivable where this innumer-

able quantity of animalcules, which are, singly, imperceptible to the naked eye, can possibly be placed. But nature has limited even this vast increasing power, and she freely sacrifices millions in order to preserve their species always in their proper quantities. What are, compared with these numbers, the quantities of herrings, sprats, and other fish which crowd the sea in such mighty masses? They vanish into nothingness.

'Sharpe's Magazine.'

Myriad.—A large number. Properly, 10,000.

Agitate.—To disturb. *Lat. ago*, to set in motion, to drive; *agito*, to keep in constant motion.

Denizen.—An inhabitant.

Rapacity.—Greediness. *Lat. rapax*, devouring.

Susceptible.—Capable; e. g. He is susceptible of pleasure.

Palpitatingly.—With beatings or flutterings.

Ephemeral.—Transitory, destined to live only for a day.

Infinitesimal.—Infinitely small.

LESSON XXII.

A TERRIBLE FIFTY MINUTES.

In August, 1859, I arrived at Chamounix with one of my friends, a traveller like myself. For about five weeks we had been exploring Switzerland, so that we had plenty of time to get used to snow and glaciers. We had made several ascents, one of 14,000 feet. I well remember the sensation I felt when I first saw one of those crevasses which seam the surface of the glaciers. Holding firmly by my guide's hand, I leaned over that yawning gulf, and tried to gaze down into its terrible depth. The two perpendicular walls of ice appeared

to meet some 300 feet below, but I believe it was only the effect of perspective, the rent being probably prolonged as far as the solid rock.

"A man who falls in there is certain never to come out alive," said one of my guides.

"True," replied the other; "but I knew one who was rescued. A narrow escape indeed it was; he still lives at Grindelwald. He is a chamois hunter; he was returning home; in descending the glacier he made a slip and fell into a crevasse. His fall was broken by projecting blocks of ice, which yielded however beneath his weight when he clung to them. When he reached the bottom, a distance of some hundred feet, he had a leg and an arm broken. Between the earth and the ice he found a hollow place into which a stream was running; crawling along, suffering terrible pain, he followed the course of the water, and in three hours he was out of the glacier."

Crevasses vary in breadth from two to six feet at the mouth, but the sides approach rapidly as they descend, so that a man may find himself jammed in between two walls of ice a long time before he reaches the bottom, and then, if ropes long and strong enough are at hand, it is possible to save him from a dreadful death. But generally the ropes are not long enough, and the traveller perishes of cold, or falls lower down into the crevasse during the hours which elapse, while some of the party have gone to the nearest village to fetch longer ropes. Thus an unfortunate Russian nobleman perished in a glacier near Zermatt some years ago.

We had ascended the Brévent, we now had only the Mer de Glace and the Jardin to visit. We slept at the Montanvert in the solitary little inn at the foot of

the glacier. Next morning we were up at dawn. Furnished with some provisions and two bottles of wine, we started with our guides. It was a splendid morning, and augured well for our excursion. For half an hour we followed a rough path which skirted the Mer de Glace, which displayed below us its surface riven with crevasses and covered with rocks and fragments. Our road ended at the glacier, upon which we now began to descend, and to traverse in zig-zags in the midst of numerous fissures. The Mer de Glace is not considered dangerous, and it is quite the exception to take axes and ropes, when crossing it. Alert and cheerful we hastened on without taking notice of the guide, who, some way behind, cried out to us several times to be cautious and wait for him. We were obliged at last to halt before a vast crevasse which barred up our passage. It opened with a length of some sixty yards, and ended upon our left in a slope of ice, somewhat steep, but which I thought I could easily mount. Using the iron spike of my alpenstock as a hatchet, I began to cut holes in the ice, large enough to put my feet in. At this moment our guide rejoined us. He looked at the slope and at the yawning crevasse below it, and said in a grave tone, "It is dangerous; let us go round it."

With the help of my alpenstock I had already got half way up this icy hillock, and was now quite convinced that it was too steep and slippery to be crossed without an axe. The guide's warning confirmed my opinion. I resolved to retrace my steps. I was cautiously lowering my right leg seeking for the hole that I had made in the ice; my foot passed it; I felt that I was sliding down; there was nothing rough to stop me, not the least projection by which I could hold my-

self in. The declivity became perpendicular, and I fell into the gulf.

I heard the cry of despair of my companion and my guide. My own sensation cannot be described. I was giddy and half stunned, sent backwards and forwards from one wall of ice to the other; I felt myself descending to a great depth, condemned to be dashed to pieces, to die by a horrible death. Suddenly something stopped me, I felt myself suspended. I took breath again, and could cry out, "A rope! a rope!"

By God's mercy I had fallen upon a narrow ledge of ice, which formed a sort of bridge across the crevasse. This frail support, as far as I could judge, was about four inches broad and eighteen thick. My head hung from one side of it, my feet from the other. Instinctively and immediately, by what means I know not, I raised myself up and stood upright on this projection, where there was a hollow just large enough for me to plant one foot.

Then I heard my companion say above me, "We never hoped to hear your voice again; trust in God and take courage. The guide has run to Montanvert to seek men and ropes, he will come back directly."

"If he is long," I replied, "I shall not come up alive."

My position was a terrible one, the thin ledge of ice was so narrow that I could not place both feet on it. I could only support myself on one leg, half resting against one of the ice walls, and pressing the other with my hand. The ice was smooth as a mirror, there was nothing to grasp. A stream of ice-water flowed down upon my shoulders, piercing me to the very bones; above my head I saw the long and narrow streak of the sky round which the mouth of the crevasse formed a frame. The ice, which was of darkest blue

colour, encircling me on all sides, looked threatening and gloomy. The two walls seemed as if they were about to meet in order to crush me, rather than to release their prey. Numerous water-courses streamed down their sides, but in this extent of more than sixty yards I could not see any other projection or obstacle except this ledge on which I had so miraculously fallen.

I risked looking, for one second only, down into the terrible abyss, above which I was suspended. At the spot where I was, the crevasse was not more than two feet wide, lower down it narrowed rapidly, and a hundred yards below the two sides appeared to touch each other. I believe if I had fallen but a very few inches on either side from the narrow bridge which had arrested me, I should have been buried and jammed up at a depth where no rope could have reached me. I had remained about twenty minutes in my perilous position, nerves and muscles stretched to the utmost to keep myself there, looking at the sky above my head and at the ice around me, but not daring again to glance into the gulf below. The blood was flowing from a wound I had received on the cheek, and I felt that my right leg, upon which fortunately I was not resting, was severely bruised; the left leg, however, pained by the effort of standing and the cold, was beginning to give way. It was impossible to change my position without the risk of losing my balance. The cold of the wall of ice against which I was resting more and more benumbed me, the water continued to fall, and I dared not stir.

I called my companion; no one replied. I called again. Nothing! Nothing! Not a human being within reach of my voice. I was seized with giddiness as a terrible thought crossed my brain.

"He has gone to see if the help is coming, and he cannot find the crevasse again, there are hundreds such—I am lost!"

I commended my soul to God. My strength was quite exhausted. I had never yet given up all hope. I was seized with a desire to let myself fall, and thus put an end to this agony.

At this critical moment, I heard myself called. My friend had run to look for the guide, but when he wished to return he was horror-struck on perceiving, that the surface of the glacier was rent by countless crevasses, all so similar that there was not a single sign by which he could recognize the abyss where I was buried alive. In this cruel perplexity God guided him to see a little knapsack which the guide had left at the edge of the gulf. I cried to him to look at his watch. Five minutes more had elapsed. The cold was becoming more and more intense, the blood was literally freezing in my veins. I called; I asked if there was anyone in sight. The guide had started thirty-five minutes ago, and not a soul had yet appeared. It was scarcely probable that he could return so quickly, as we had taken three-quarters of an hour to get to this spot, and he had to go and return.

I felt that I could hold on but very little longer. The frail support on which my safety alone depended might yield at any moment and break beneath me. I remembered that I had a strong knife in my pocket, and I resolved to make use of it to draw myself out. I informed my companion of this project; he implored me to do nothing of the kind; but my situation had become intolerable. I made a notch in the ice, high enough for me to reach it, and large enough for me to insert my hand in it; then about two feet above the

little bridge I dug out a hole sufficiently large for me to place my foot in it. I succeeded, and grasping these two points of support, my back resting with all my strength against the opposite wall, I was able to raise myself and keep myself firm in this new position. I descended again upon the bridge, and began another notch above the first. I flattered myself that I should thus be able to escape from my prison, but a single slip, a false step, would precipitate me into the abyss.

I was working diligently at my second step when I heard a joyous cry above me. "Here they are! Three men with ropes—they are running as fast as their legs can carry them."

I steadied myself as firmly as possible upon the narrow and slippery bridge, so as to be able to seize the rope they were about to lower, and tie it round me. I saw the end of it swinging about two yards above my head. "May God have mercy upon me! it is too short!"

"We have another."

That was fastened to the first and let down. I seized the end of it. I bound it strongly round my waist, and grasping the rope with both hands I gave the signal for them to pull up.

They began—I was saved. A minute afterwards I was standing upon the glacier. I had passed fifty minutes in the crevasse, during which time I had happily lost neither my confidence in God nor my presence of mind.

When I placed my foot upon firm ground again, an overpowering feeling of deep gratitude to the Almighty Who had delivered me in so great a peril filled my breast; I fell on my knees and fainted. When I again became conscious, our party was preparing to start for the Montanvert. Before leaving I wished to cast one

last look into the crevasse where I had nearly been buried alive. I saw how completely impossible it would have been for me to get out of it as I had projected. The opening at the top was too wide to have allowed me as I reached it to lean against the opposite wall, and without that support the most agile of climbing animals would have found it impossible to scale this perpendicular wall of ice.

The guide had run to the inn, where he could not find a single rope suitable for the purpose. In despair he started for Chamounix, when on the way he met two muleteers. Their animals were laden with wood, tied on with ropes, which he implored them to give him to save a poor traveller who had fallen into a crevasse. These good people at once unloaded their mules and came with the guide to my assistance. Tying them together—there were three—the ropes reached the depth of thirty to forty yards, where I had been arrested in my fall.

Assisted by my deliverers I was able to reach Montanvert; where, in a good bed, and with my bruises attended to, I had leisure to dream about the danger from which I had escaped, and the remembrance of which often haunts me both sleeping and waking. I trust that future travellers, profiting by my experience, will not run the risk of penetrating into the midst of these icy regions without providing themselves with axes and ropes, and especially with a firm confidence in God's goodness, the surest of supports, and the best safeguard here below.

J. F. C., in '*Chatterbox*' for 1871.

Crevasse.—A deep rift in a glacier.

Fissure.—A cleft. *Lat. findo*, to cleave.

Abyss.—A great depth. Properly, a bottomless pit.

Agile.—Active, nimble.

LESSON XXIII.

BARBARA FRIETCHIE.

Up from the meadows rich with corn,
Clear in the cool September morn,

The clustered spires of Frederick stand
Green-walled by the hills of Maryland.

Round about them orchards sweep,
Apple and peach-tree fruited deep,

Fair as a garden of the Lord
To the eyes of the famished rebel horde,

On that pleasant morn of the early fall
When Lee marched over the mountain wall,—

Over the mountains winding down,
Horse and foot, into Frederick Town.

Forty flags with their silver stars,
Forty flags with their crimson bars,

Flapped in the morning wind: the sun
Of noon looked down, and saw not one.

Up rose old Barbara Frietchie then,
Bowed with her fourscore years and ten;

Bravest of all in Frederick Town,
She took up the flag the men hauled down;

In her attic window the staff she set,
To show that one heart was loyal yet.

Up the street came the rebel tread,
Stonewall Jackson riding ahead.

Under his slouched hat left and right
He glanced; the old flag met his sight.

"Halt!"—the dust-brown ranks stood fast.
 "Fire!"—out blazed the rifle-blast.

It shivered the window, pane, and sash;
 It rent the banner with seam and gash.

Quick, as it fell from the broken staff,
 Dame Barbara snatched the silken scarf;

She leaned far out on the window-sill,
 And shook it forth with a royal will.

"Shoot, if you must, this old grey head,
 But spare your country's flag," she said.

A shade of sadness, a blush of shame,
 Over the face of the leader came;

The nobler nature within him stirred
 To life at that woman's deed and word:

"Who touches a hair of yon grey head
 Dies like a dog! March on!" he said.

All day long through Frederick Street,
 Sounded the tread of marching feet:

All day long that free flag tossed
 Over the heads of the rebel host.

Ever its torn folds rose and fell
 On the loyal winds that loved it well;

And through the hill-gaps sunset light
 Shone over it with a warm good-night.

Barbara Frietchie's work is o'er,
 And the rebel rides on his raids no more.

Honour to her! and let a tear
 Fall, for her sake on Stonewall's bier.

Over Barbara Frietchie's grave
 Flag of Freedom and Union, wave!

Peace and order and beauty draw
Round thy symbol of light and law;

And ever the stars above look down
On thy stars below in Frederick Town!

J. G. WHITTIER.

Horde.—A disorganized multitude.

Raid.—A predatory irruption.

Symbol.—A sign, token.

LESSON XXIV.

THE GUNPOWDER PLOT.

MILD as James I. was in toleration, there was a project contrived at the very beginning of his reign for the re-establishment of Popery, which, were it not a fact known to all the world, could scarcely be credited by posterity. This was the gunpowder plot, than which a more horrid or terrible scheme never entered into the human heart to conceive. The Roman Catholics had expected great favour and indulgence on the accession of James, both as a descendant of Mary, a rigid Catholic, and also as having shown some partiality to that religion in his youth; but they soon discovered their mistake, and were at once surprised and enraged to find James on all occasions express his resolution of strictly executing the laws against them, and of persevering in the conduct of his predecessor. This declaration determined them upon more desperate measures: and they at length formed a resolution of destroying the king and both houses of parliament at a blow. The scheme was first broached by Robert Catesby, a gentleman of

good parts and ancient family, who conceived that a train of gunpowder might be so placed under the parliament house as to blow up the king and all the members at once. How horrid soever the contrivance may appear, yet every member seemed faithful and secret in the league, and about two months before the sitting of parliament they hired a house in the name of Percy, adjoining to that in which the parliament was to assemble. Their first intention was to bore a way under the parliament house from that which they occupied, and they set themselves laboriously to the task; but when they had pierced the wall, which was three yards in thickness, on approaching the other side they were surprised to find that the house was vaulted underneath, and that a magazine of coals was usually deposited there. From their disappointment on this account they were soon relieved by the information that the coals were then selling off, and that the vaults would then be let to the highest bidder. They therefore seized the opportunity of hiring the place, and bought the remaining quantity of coals with which it was then stored, as if for their own use. The next thing done was to convey thither thirty-six barrels of gunpowder, which had been purchased in Holland, and the whole was covered with coals and with fagots, brought for that purpose. Then the doors of the cellar were boldly thrown open, and everybody admitted, as if it contained nothing dangerous. Confident of success, they now began to plan the remaining part of their project. The king, queen, and prince Henry, the king's eldest son, were all expected to be present at the opening of the parliament. The king's second son, by reason of his tender age, would be absent, and it was resolved that Percy should seize or assassinate him. The Princess

Elizabeth, a child likewise, was kept at Lord Harrington's house, in Warwickshire; and Sir Everard Digby was to seize her, and immediately proclaim her queen.

The day for the sitting of parliament now approached. Never was treason more secret, or ruin more apparently inevitable; the hour was expected with impatience, and the conspirators gloried in their meditated guilt. The dreadful secret, though communicated to above twenty persons, had been religiously kept during the space of near a year and a half; when all the motives of pity, justice, and safety were too weak, a remorse of private friendship saved the kingdom. Sir Henry Percy, one of the conspirators, conceived a design of saving the life of Lord Mounteagle, his intimate friend and companion, who also was of the same persuasion with himself. About ten days before the meeting of parliament, this nobleman, upon his return to town, received a letter from a person unknown, and delivered by one who fled as soon as he had discharged his message. The letter was to this effect:—

“My lord, stay away from this parliament; for God and man have concurred to punish the wickedness of the times, and think not slightly of this advertisement, but retire yourself into your country, where you may expect the event in safety. For though there be no appearance of any stir, yet I say they will receive a terrible blow this parliament; and yet they will not see who hurts them. This counsel is not to be condemned, because it may do you good, and can do you no harm. For the danger is past as soon as you have burned this letter.”

The contents of this mysterious letter surprised and puzzled the nobleman to whom it was addressed; and though inclined to think it a foolish attempt to affright

and ridicule him, yet he judged it safest to carry it to Lord Salisbury, secretary of state. Lord Salisbury, too, was inclined to give little attention to it, yet thought proper to lay it before the king in council, who came to town a few days after. None of the council were able to make anything of it, although it appeared serious and alarming. In the universal agitation between doubt and apprehension, the king was the first who penetrated the meaning of this dark epistle. He concluded that some sudden danger was preparing by gunpowder, and it was thought advisable to inspect all the vaults below the houses of parliament. This care belonged to the Earl of Suffolk, lord chamberlain, who purposely delayed the search till the day before the meeting of parliament, November 5, 1605. He remarked those great piles of fagots which lay in the vault under the house of peers, and seized a man preparing for the terrible enterprise, dressed in a cloak and boots, and a dark lanthorn in his hand. This was no other than Guy Fawkes, who had just disposed every part of the train for its taking fire the next morning, the matches and other combustibles being found in his pockets. The whole of the design was now discovered; but the atrociousness of his guilt, and the despair of pardon, inspiring him with resolution, he told the officers of justice, with an undaunted air, that had he blown them and himself up together he had been happy. Before the council he displayed the same intrepid firmness, mixed even with scorn and disdain, refusing to discover his associates, and showing no concern but for the failure of his enterprise. But his bold spirit was at length subdued; being confined to the Tower for two or three days, and the rack just shown him, his courage, fatigued with so long an effort, at last failed him, and

he made a full discovery of his accomplices. Catesby, Percy, and the conspirators who were in London, hearing that Fawkes was arrested, fled with all speed to Warwickshire, where Sir Everard Digby, relying on the success of the plot, was already in arms. But the county soon began to take the alarm, and wherever they turned they found a superior force ready to oppose them. In this exigence, beset on all sides, they resolved, to about the number of eighty persons, to fly no farther, but make a stand at Holbeach House, in Warwickshire, to defend it to the last, and sell their lives as dearly as possible. But even this miserable consolation was denied them; a spark of fire happening to fall upon some gunpowder that was laid to dry, it blew up, and so maimed the principal conspirators, that the survivors resolved to open the gate, and sally out against the multitude that surrounded the house. Some were instantly cut to pieces; Catesby, Percy, and Winter, standing back to back, fought long and desperately, till in the end the two first fell covered with wounds, and Winter was taken alive. Those that survived the slaughter were tried and convicted; several fell by the hands of the executioner, and others experienced the king's mercy. The Jesuits, Garnet and Oldcorn, who were privy to the plot, suffered with the rest, and notwithstanding the atrociousness of their treason, Garnet was considered by his party as a martyr, and miracles have been said to be wrought by his blood.

GOLDSMITH.

Toleration.—Allowing people to believe what they like.

Posterity.—Those who come after us. *Lat. posterus*, following.

Inevitable.—Unavoidable.

Remorse.—The gnawings of a guilty conscience. *Lat. mordeo*, to bite.

Advertisement.—Here means warning.

Contemn.—To despise.

Apprehension.—Fear, dread.

Atrociousness.—Extreme cruelty. *Lat. atrox*, cruel.

Intrepid.—Fearless.

LESSON XXV.

THE ARAB PRIESTS AND THE ECLIPSE.

ABOUT ten o'clock at night, when we were sleeping on our mats, we were suddenly awoke by a great cry of distress from innumerable voices, attended by a horrid clashing and clattering noise, which the hour of the night tended to make more terrific. Before we had time to recover from our surprise, Old Pascoe rushed breathless into our hut, and informed us with a trembling voice that "the sun was dragging the moon across the heavens." Wondering what could be the meaning of so strange and ridiculous a story, we ran out of the hut half dressed, and we discovered that the moon was totally eclipsed. A number of people were gathered together in our yard, in dreadful apprehension that the world was at an end, and that this was but the "beginning of sorrows." We learnt from them that the Mahomedan priests residing in the city, having personified the sun and moon, had told the king and the people that the eclipse was occasioned through the obstinacy and disobedience of the latter luminary. They said that for a long time previously the moon had been displeased with the path she had been compelled to take through the heavens, because it was filled with thorns and briars, and obstructed with a thousand other difficulties; and therefore that, having watched for a favourable oppor-

tunity, she had this evening deserted her usual track, and entered into that of the sun. She had not, however, travelled far up the sky, on the forbidden road, before the circumstance was discovered by the sun, who immediately hastened to her in his anger, and punished her dereliction by clothing her in darkness, forcing her back to her own territories, and forbidding her to shed her light upon the earth. This story, whimsical as it may seem, was received with implicit confidence in its truth by the king and queen and most of the people of Boossâ; and the cause of the noises which we had heard, and which were still continuing with renewed vehemence, was explained to us by the fact that they were all "assembled together in the hope of being able to frighten away the sun to its proper sphere, and leave the moon to enlighten the world as at other times." This is much after the manner of many savage nations.

While our informant was yet speaking to us, a messenger arrived at our yard from the king, to tell us the above tale, and with an invitation to come to see him immediately. Therefore, slipping on the remainder of our clothes, we followed the man to the residence of his sovereign, from outside of which the cries proceeded, and here we found the king and his timid partner sitting on the ground. Their usual good spirits and cheerful behaviour had forsaken them entirely; both appeared overwhelmed with apprehension, and trembled at every joint. Like all their subjects, in the hurry of fear and the suddenness of the alarm, they had come out of their dwellings half dressed, the head and legs, and the upper part of their persons, being entirely exposed. We soon succeeded in quelling their fears, or at least in diminishing their apprehension. The king then observed, that neither himself nor the oldest of his

subjects recollected seeing but one eclipse of the moon besides the one he was gazing at; that it had occurred exactly when the Falátahs began to be formidable in the country, and that it had forewarned them of all the wars, disasters, and calamities which subsequently took place.

We had seated ourselves opposite to the king and queen, and within two or three feet of them, where we could readily observe the moon and the people without inconvenience, and carry on the conversation at the same time. If the royal couple shuddered with terror on beholding the darkened moon, we were scarcely less affected by the savage gestures of those within a few yards of us, and by their repeated cries, so wild, so loud, and so piercing, that an indescribable sensation of horror stole over us, and rendered us almost as nervous as those whom we had come to comfort. The earlier part of the evening had been mild, serene, and remarkably pleasant; the moon had arisen with uncommon lustre, and being at the full, her appearance was extremely delightful. It was the conclusion of the holidays, and many of the people were enjoying the delicious coolness of a serene night, and resting from the laborious exertions of the day; but when the moon became gradually obscured, fear overcame everyone. As the eclipse increased, they became more terrified. All ran in great distress to inform their sovereign of the circumstance, for there was not a single cloud to cause so deep a shadow, and they could not comprehend the nature or meaning of an eclipse. The king was as easily frightened as his people, being equally simple and ignorant, he would not therefore suffer them to depart. Numbers sometimes beget courage and confidence, he thought; so he commanded them to remain near his person, and

to do all in their power to restore the lost glory of the moon.

In front of the king's house, and almost close to it, are a few magnificent cotton-trees, round which the soil had been freed from grass, &c., for the celebration of the games. On this spot were the terrified people assembled, with every instrument capable of making a noise which could be procured in the whole town. They had formed themselves into a large treble circle, and continued running round with amazing velocity, crying, shouting, and groaning with all their might. They tossed and flung their heads about, twisted their bodies into all manner of contortions, jumped into the air, stamped with their feet on the ground, and flourished their hands above their heads. No scene in the romance of Robinson Crusoe was so wild and savage as this; and a large wood fire, with a few men spitted and roasting before it, was alone wanting to render it complete! Little boys and girls were outside the ring, running to and fro, clashing empty calabashes against each other, and crying bitterly; groups of men were blowing on trumpets, which produced a harsh and discordant sound; some were employed in beating old drums; others again were blowing on bullock's horns; and in the short intervals between the rapid succession of all these fiend-like noises was heard one more dismal than the rest, proceeding from an iron tube, accompanied by the clinking of chains. Indeed, everything that *could* increase the uproar was put in requisition on this memorable occasion; nor did it cease till midnight, when the eclipse had passed away. Never have we witnessed so extraordinary a scene as this. The diminished light, when the eclipse was complete, was just sufficient to enable us to distinguish the various

groups of people, and contributed in no small degree to render the scene still more imposing. If an European, a stranger to Africa, were to be placed on a sudden in the midst of the terror-struck people, he would imagine himself to be among a legion of demons, holding a revel over a fallen spirit; so peculiarly unearthly, wild, and horrifying was the appearance of the dancing group, and the clamour which they made. It was perhaps fortunate for us that we had an almanac with us, which foretold the eclipse; for although we neglected to inform the king of this circumstance, we were yet enabled to tell him and his people the exact time of its disappearance. This succeeded in some measure in suppressing their fears, for they would believe anything we might tell them; and perhaps, also, it has procured for us a lasting reputation "and a name." "Oh," said the king, "there will be sorrow and crying this night from Wowow to Yáoorie. The people will have no one to comfort or condole with them; they will fancy this eclipse to be the harbinger of something very dreadful; and they will be in distress and trouble till the moon shall have regained her brightness." It was nearly one o'clock when we left the king and queen, to return to our hut; everything was then calm and silent, and we lay down to rest in peace.

From Lander's 'Expedition to the Niger.'

Personify.—To represent as a person; e. g. Poets often personify things that are inanimate.

Luminary.—A body that gives light. *Lat.* lumen, light.

Calamity.—Misfortune.

Gestures.—Actions used instead of words.

Lustre.—Brightness; e. g. The lustre of the ornaments was quite dazzling.

Contortions.—Wreathings. *Lat.* torqueo, to twist.

Calabash.—A vessel made out of a gourd, and used for carrying liquids in.

Requisition.—Demand; e. g. All their horses were in requisition.

Revel.—A disorderly feast; e. g. The revel lasted long.

LESSON XXVI.

WONDERS OF NATURE.

VESUVIUS.

ONE of the most active volcanoes in the world is Vesuvius. He is a terrible fellow when awake, but he has long naps. Some say he never did any harm before the Christian era. At that time his sloping sides were richly cultivated, and very fertile, and his crown was a slightly hollow plain, where it is said that a battle once took place between the Roman army and Spartacus.

Sixty-three years after Christ was born the mountain began its pranks. Pompeii was then alarmed by a great trembling of the earth, but the alarm subsided, and it was not until sixteen years afterwards that the three cities of Pompeii, Herculaneum, and Stabiae, were buried beneath vast showers of cinders, ashes, and loose fragments; but no lava was thrown out on that occasion. The first stream of lava occurred in 1036, the next violent eruption happened in 1139, and then nearly five hundred years went by before another eruption of any moment took place.

A certain traveller, named Braccim, visited Vesuvius a short time before the tremendous outburst in 1631. He found everything quite placid. The hollow, called

the crater, was covered down to the bottom of its sides with brushwood, in which wild boars harboured, and at the lowest part was a grassy plain, where the cattle grazed. The only signs of a volcano were a few ashes strewn about, and three small pools, one filled with hot and bitter water, another more salt than the sea, and the third hot but tasteless. Things remained thus until December, 1631, when the mountain suddenly became convulsed ; streams of lava poured from a new crater, and several villages at the foot of the mountain were consumed. It was in this eruption that the city of Resina, built over the old city of Herculaneum, was destroyed by the fiery stream. Since 1631, hardly ten years have passed without an eruption taking place. In 1663 thousands of lives were lost by a torrent of boiling water, which burst out of the mountain with the lava. In 1737 the lava flowed like a river of fire through the town of Torre del Greco, into the sea. That town has been destroyed and rebuilt over and over again.

Sir William Hamilton, who resided many years near Vesuvius, has left interesting memorials of this wonderful mountain. A few extracts from his notes may be acceptable :—

Oct. 4, 1762.—An eruption took place, and there was terrible thunder and lightning, but upon the mountain only, where, in the midst of the blackest smoke, a bright but pale electrical fire played about in zigzag lines. Many meteors, like shooting stars, were seen also in the eruption. The ashes cast out are poisonous. A countryman lost eight hogs from the ashes being mixed with their food in the trough. When the ashes grow whiter, it is a sign that the eruption is coming to an end.

Oct. 19, 1767.—The twenty-seventh eruption since that which destroyed Pompeii has begun. In December, 1766, the crater was twenty feet deep. In the middle of the plain, at the bottom, was a little mountain, with a deep hole in its apex. Sir W. Hamilton threw stones down the hole, and could count a hundred leisurely before he heard them dash against the bottom. In March, April, and May, 1767, the little mountain was active, and kept growing in height. In August lava flowed from the little mountain, and filled the valley. By the middle of September the valley was too full to hold any more, so it began to flow down the sides of the great mountain. By October 15th the little mountain had grown to the height of 185 feet. On October 19th a very dense column of smoke burst out of the little mountain. It took the exact shape of a huge pine-tree, and, having mounted to an immense height, was carried by the wind to Capri. About 100 yards below the edge of the old crater the lava burst forth, with a violent noise, from a new mouth. The mountain split open, a fountain of liquid fire shot up, and then rolled directly towards Sir William. In a moment he was enveloped in thick darkness; but he ran as well as he could for three miles, the earth shaking under his feet. Every moment he expected a new mouth might yawn before him, and cut off his retreat. He also dreaded lest some of the rocks under which he had to pass might be shaken down and crush him to atoms. The pumice-stones fell about him like a shower of hail. In Portici, which is on the site of Herculaneum, doors and windows were forced violently open; there was a dreadful hissing noise; for many days the sun was darkened, and the mountain could not be seen.

Sunday, August 8, 1780.—About nine in the evening there was a loud report. It shook the houses of Portici so that the people rushed into the streets. In an instant a fountain of liquid fire began to rise from Vesuvius, and reached a height that amazed everyone who saw it—there was a colossal cloud of smoke, in which a pale, bright, electrical fire played about in zigzag lines. Large stones, weighing thirty pounds, were found miles away, and ashes fell a hundred miles off. But the convent of Ottiano suffered most of all from a deluge of stones, some of which weighed as much as sixty pounds. These masses, when they fell on the ground, broke into many pieces, and covered a large space around them with vivid sparks of fire. The poor monks could hardly breathe the sulphurous air; and if the shower had lasted, Ottiano would have been buried like Pompeii. In twenty-five minutes' time ashes had fallen to the depth of four feet.

For the first mile lava flows as fast as an ordinary river. Afterwards its course is slower, and at length it moves at about the rate of three miles an hour, and so forth, until it stops. It is red, like melted glass; but, though a liquid, it is impossible to make any impression on it.

If our statements are correct, it seems there are nearly 200 volcanoes; and 90, or nearly one-half, are insular. To Europe belong 13; to Asia, 66; to America, 116; while Africa does not seem to possess one.

G. S. O., in '*Chatterbox*' for 1876.

Placid.—Gentle, peaceful; e. g. The old man had a placid look.

Convulsed.—Torn asunder. *Lat. vello*, to pluck.

Apex.—Top, summit.

Colossal.—Huge, gigantic. So called from the Colossus, a huge figure that once stood across the harbour of Rhodes.

LESSON XXVII.

THE PARTING OF CHARLES I. AND HIS CHILDREN.

O PERSECUTED king, the end draws nigh,
 Of all thy sufferings on this toilsome earth;
 The labouring hours that pass so wearily
 Will shortly bring thee to thy day of birth.
 Heir of a goodly heritage on high,
 Thy hope is full of immortality.

Thy earthly ties are loosening one by one,
 Pleasure, ambition, pride in thee are dead;
 Thy manly bloom is prematurely gone,
 And age upon thy "grey discrowned head"
 Has crept before her time, and sorrow now,
 Has ploughed deep furrows on thy cheek and brow.

Yet at the close of this thy sojourn here,
 Thy heart still yearns with all a father's care
 O'er those dear children, more than ever dear,
 For the afflictions which with thee they share;
 And, ere thou take thy last brief rest, to thee
 They come, and once again are fondled at thy knee.

O pity, pity for each childish heart!
 How fast they beat, as slowly, fearfully
 To that dear father's presence they draw nigh!
 How sweet, how bitter, thus to meet and part!
 They enter now, his loving voice they hear;
 He breathes a blessing on his daughter dear.

She kneels before him melancholy-meek,
 Whilst struggling tears are glistening in her eye;
 He gently lifts her up, and thus doth speak:
 "Some things there be, that now before I die,
 I fain would say to thee, and thee alone;
 Bear them in memory when I am gone:

"Grieve not for me; a glorious death I die.
 For true religion's sake my blood is shed,
 For law and order, sober liberty,
 Then, darling, mourn me not when I am dead.
 Hold fast the truth, and keep the ancient way,
 Let no false erring guide thy steps betray.

"God pardon all my foes, as I forgive;
 I charge thee, dearest child, do thou the same;
 And bid thy brethren and thy sisters strive
 To conquer wrath, revengeful thoughts to tame,
 And trust in God, Who, when He seeth fit,
 Will bring my son again, upon my throne to sit:

"Sweet-heart, this you'll forget!" "No, no," cried she;
 "I never shall forget it while I live."
 Then pouring forth her tears abundantly,
 She doth a promise to her father give
 To write the words he speaks, that they may be
 A treasured heir-loom for posterity.

He sets his princely boy upon his knee:
 "My child, they will cut off thy father's head"—
 Grave looked the boy when those sad words were said,
 And gazed upon him long and steadfastly—
 "They will cut off my head, and then will strive
 To make thee king, while yet thy brothers live:

"But yield not to them, and continue still
 In true allegiance to the rightful heir;
 For they who seek thy brethren twain to kill
 Will slay thee too, once taken in their snare."
 Then from the child this sighing answer burst,
 "Father, I will be torn in pieces first!"

Thus sadly they confer, but ere they go
 He brings his few remaining treasures forth:
 "See all the wealth," he cries, "I can bestow—
 "These jewels, now to me of little worth;
 My two dear children, from your father take
 These farewell gifts, and prize them for my sake.

“Commend me to my dear ones far away,
 And to your mother, most of all, and chief;
 Honour and succour her, her voice obey;
 Comfort, support her, in her bitter grief.
 To her, to all, my blessing now I send;
 God bless you both, God keep you to the end.”

The parting moment comes; they must not stay;
 His voice still murmurs blessings in their ears;
 One long embrace, and then with sobs and tears
 They feel his loosening hand, and burst away;
 He turns aside—then hasting to the door,
 Gives one last kiss, and blesses them once more.

O broken-hearted orphans! weep not so,
 His is a glorious death, a martyr's end;
 Ye too must suffer, but amid your woe
 One Comforter ye have, one Heavenly Friend;
 A thorny path like yours He deigned to tread,
 Who had not where on earth to lay His head.

He loves you still, deserted, fatherless;
 He hears your sighs, and counts your tears by night;
 He, in His own good time, will bring redress,
 And once again your spirits reunite
 With that dear father, whom ye loved so well,
 In heavenly sunshine evermore to dwell.

‘*Ballads from English History.*’

Premature.—Before its time. *Lat. præ*, before; *maturus*, ripe.

Heir-loom.—A possession handed down from father to son, and never allowed to go out of a family.

Allegiance.—Faithful attachment.

Redress.—Compensation for injury inflicted; e. g. She could get no redress.

LESSON XXVIII.

AN ARMY OF ANTS.

ONE night whilst I was still living in the little camp we were visited by a countless army of black stinging ants. I was asleep in my hammock, which, in common with those of the men, was suspended within the one big *rancho* that served to accommodate us all, when I was aroused by a pricking sensation on different parts of my body. At first I thought it was my old enemies the *pulgas* come to pay us a visit in our new camp, but I soon found that the pricks were somewhat sharper than could be inflicted by those diminutive creatures, and the moment that I moved, I found also that they were redoubled, both in number and in force. Looking round the *rancho* I saw that most of the Brazilians were awake, and many of them squatting round the fire, which was just within the *rancho*, at the farther end.

I put my foot to the ground with the intention of joining the group at the fire, when in a second it was stung and bitten in a score of places. I had placed it down in the very midst of a thick marching column of ants, some hundreds of which had immediately grappled hold and were now swarming up my leg, stinging and biting viciously as they went. With my hands I swept them off by fifties, and then, without leaving my hammock, struck a match and lit an oil lamp, which stood on the canteen close at hand, in order to survey the enemy.

Immediately beneath the hammock there appeared a broad moving line, consisting of tens of thousands of ants, traversing the *rancho* from one end to the

other, off which various narrow lines were branching in different directions; the space between these latter lines being occupied by individual ants which seemed to be running hither and thither with no apparent aim. These latter were, however, as presently appeared, engaged in the most important work of all, namely, in foraging for supplies.

Seeing how matters were on the ground below, I resolved to remain where I was, for as yet only a few scattered individuals had found their way into my hammock. Soon, however, I found that I was between two fires, for the ants were sending their skirmishers up into the palm-leaf thatch above, from whence many were dropping in my hammock, and upon my uncovered head and neck, biting and stinging savagely the moment they came in contact with any part of my body. Looking up, I saw that the whole under-surface of the thatch was covered with hundreds of thousands of the little animals, all running about in a state of the greatest activity, the noise of their movements amongst the dry palm-leaves sounding like the rustling of autumn leaves when a wind passes over them.

In order to escape this second peril from above, I dived beneath my blanket, covering myself entirely with its ample folds. The ants, falling upon this, got entangled in the wool, and were thus effectually prevented from pursuing their explorations beneath it. Some few, however, found an entrance by running along the cords by which the hammock was slung, so that I was pretty constantly occupied under the blanket in killing these as fast as they made their presence known by bite or sting. The Brazilians, many of whose hammocks had been completely invaded, had surrounded themselves, where they were now

sitting, by a circle of hot ashes, which proved effectual in keeping the space within clear of the ants, excepting those that fell from the roof.

In two hours from the time when this vast army first made its appearance in the *rancho*, not a vestige of it remained, either on the ground or in the roof. Every living individual had followed the onward movement of the broad central column, and departed. Only upon our blankets, where some number of individuals had got themselves hopelessly entangled, did any remain. On the following night we had another visitation from these same ants. As on the first occasion, they remained two hours, and then entirely disappeared. I never remember observing these ants except at night, and in vast armies such as I have described. I observed, also, that they generally appeared in the same camp on two consecutive nights, and that the time of their stay was invariably limited to about two hours.

Their marches are not mere mobs, but are regularly organized, and seem to be directed by officers, some of whom are seen stationed on either side of the main line of march at short intervals apart, while others accompany the main body. Those which I take to be officers are quite double the size of the individuals forming the main bulk of the army. The stationary officers generally stand up on their hind legs, in which position they appear to both give and receive orders, which are communicated by individuals of the smaller kind, whose duties seem to be something akin to those of aides-de-camp. If one of these latter be watched, he will often be seen to run down the column in an opposite direction to the general line of march, stopping for a second or more at each of the big stationary

fellows, and evidently telling him something by means of quick motions of the antennæ, which are seen to rapidly play with each other for that brief space of time. After communicating in this manner with several of the officers, the little aide-de-camp will turn back, and be lost in the general throng of ants pressing forwards in one direction.

I do not know whether any observer has ever given a complete account of these ants, with especial reference to the mode and means by which the movements of their great armies are organized and directed. For my part, I am convinced of the truth of the common theory that they converse with each other by means of *touch*, and that this sense answers to them all the purposes of a language more or less complex and intellectual.

The skirmishers or foragers which are thrown out upon each side of the main column do not extend their explorations to any great distance, the general limit being from three to four yards on either side. Within this limit, however, no living animal organism escapes them. Grubs, caterpillars, spiders, insects of all kinds, have either to flee for their lives, or be killed and torn to pieces. As we have seen, they do not confine their ravages to *terra firma*. They swarm up any trees or poles, which happen to lie on their track, to a considerable height. When they come to a *rancho*, no nook or corner of its roof is left unexplored, and the many scores of caterpillars, grubs, and spiders, which have been bred or have taken up their abode in the dry thatch, are routed out and utterly destroyed. Even wasps' nests do not escape, for, on one occasion, a small species of black and yellow wasp, having constructed a nest on the ridge-pole of one of our *ranchos*,

these ants entered in the night and entirely destroyed it, so that in the morning there was not a vestige of it remaining. Mr. Bates, in his interesting work, 'The Naturalist on the Amazons,' gives a very graphic account of the destruction wrought by armies of these ants amongst the lower animal life. My experience of them in many particulars tallies completely with the accounts that he gives. He, however, makes no mention of their being nocturnal in their habits.

Many travellers in Brazil are accustomed to talk and write of the ants in that country as being one of its principal scourges, especially to the farmer and planter. I venture to think this is too sweeping a denunciation. Carnivorous ants, such as the species just described, cannot but be a great boon to the agriculturist in many instances; destroying, as they do, countless multitudes of caterpillars, and other insect larvæ, which, were they allowed to live and multiply, would prove destructive to all vegetation. Everybody knows what a ruinous effect the wholesale destruction of small birds had at one time in certain countries of Europe, and how speedily the farmers discovered their mistake, when their crops and their fruit-trees were devoured by the superabundance of insect vermin, which rose up in the land. If the carnivorous ants—and I believe that the great majority of ants in Brazil are carnivorous—were destroyed, supposing such destruction were possible, it is safe to assert that the injury that would accrue to the farmers and planters would be disastrous. For, in such a country as Brazil, insect life marvellously multiplies; and therefore, without the ceaseless war that is for ever being carried on against it in all its stages by countless myriads of ants, not a planter but would be

eaten out of his estate in a year. For my part I always feel deeply grateful to the ant tribe in Brazil. Without their counteracting influence, the forests, for at least half the year, would be absolutely uninhabitable, and even impenetrable by any human being. Even as it is, the plague of insect vermin in the summer season is terrible enough, as I have sufficiently shown, and any addition to it would be quite intolerable.

There is, however, one kind of ant, known as the Saüba ant, which might, I think, with advantage be improved off the face of the earth. We used frequently to meet with it in the forest, winding along the ground in a long narrow line, each individual toiling under the load of a great piece of leaf, four or five times bigger than itself, which it had robbed from some distant tree, and was now bearing away to its colony in another part of the forest. The funny part is to see these ants carrying the leaves vertically and not horizontally. When I first saw them, and noticed their leaf-carrying propensities, I knew little or nothing about their economy of life. I used to fancy, from the fact of their being more frequently seen carrying the leaves during the rains than during the dry season, that their idea was to shelter themselves from the rain by means of these leaves during their marches; and I wondered why they so stupidly persisted in carrying the leaves in the manner which afforded the least protection. Mr. Bates discovered, after long investigation, the exact use to which these leaves were put. He says, "the leaves are used to thatch the domes which cover the entrances to their subterraneous dwellings, thereby protecting from the deluging rains the young broods in the nests beneath." His general account of

these ants and their wonderful engineering works is most interesting. Notwithstanding the havoc they make in plantations by stripping the young trees of their leaves, there is no doubt that even these ants destroy a certain amount of injurious insect vermin, though it can scarcely be denied that, on the whole, this particular species is more of a curse than a blessing upon cultivated lands.

'Pioneering in South Brazil,' by T. P. Bigg Wither.

Rancho.—A large farming establishment.

Diminutive.—Very small; e. g. A diminutive child stood at the door.

Viciously.—Severely, as though they found a pleasure in the infliction of pain.

Traverse.—To cross. *Lat. trans*, across; *verto*, to turn.

Vestige.—Trace. *Lat. vestigium*, a footprint.

Consecutive.—Following. *Lat. sequor*, to follow.

Organized.—Systematically directed.

Aides-de-Camp.—Officers whose duty it is to convey the orders of a commanding officer.

Complex.—Involved, difficult, the opposite of simple. *Lat. plico*, to fold.

Foragers.—Soldiers whose duty it is to collect food for their companions and the horses.

Tally.—To agree. *Fr. tailler*, to cut. A tally stick is one on which accounts are kept by cutting notches in it.

Nocturnal.—Belonging to the night. *Lat. nox*, night.

Denunciation.—A condemnatory charge.

Accrue.—To fall to; e. g. Great credit accrued to him on account of his bravery.

Vertically.—In an upright direction.

Propensity.—A natural or acquired tendency.

Subterraneous.—Beneath the earth. *Lat. sub*, under; *terra*, the earth.

Havoc.—Destruction.

LESSON XXIX.

THE BREATH OF LIFE.

WHAT is all this process going on within us, which we cannot do without, either day or night, which is so provided for by the Author of all things, that He has arranged that it shall be independent of all will? If we restrained our respiration, as we might, to a certain extent, we should destroy ourselves. When we are asleep, the organs of respiration, and the parts that are associated with them, still go on with their action; so necessary is this process of respiration to us, this contact of air with the lungs. I must tell you, in the briefest possible manner, what this process is.

We consume food: the food goes through that strange set of vessels and organs within us, and is brought into various parts of the system, into the digestive parts especially; and alternately the portion which is so changed is carried through our lungs by one set of vessels, while the air that we inhale and exhale is drawn into and thrown out of the lungs by another set of vessels, so that the air and the food come close together, separated only by an exceedingly thin surface: the air can thus act upon the blood by this process, producing precisely the same results in kind as attend the burning of a candle.

The candle combines with parts of the air, forming carbonic acid, and evolves heat; so in the lungs there is this curious, wonderful change taking place. The air, entering, combines with the carbon and makes carbonic acid, and is so thrown out into the atmosphere: we may thus look upon the food as fuel. Let me take that piece of sugar, which will serve my purpose.

It is a compound of carbon, hydrogen, and oxygen, similar to a candle, as containing the same elements, though not in the same proportion; the proportions in sugar being as shown in this table:—

Carbon	..	..	..	..	72
Hydrogen	..	..	..	..	11
Oxygen	..	..	..	..	88

}99

This is, indeed, a very curious thing, which you can well remember, for the oxygen and hydrogen are in exactly the proportions which form water, so that sugar may be said to be compounded of 72 parts of carbon and 99 parts of water; and it is the carbon in the sugar that combines with the oxygen carried in by the air in the process of respiration, so making us like candles; producing these actions, warmth, and far more wonderful results besides, for the sustenance of the system, by a most beautiful and simple process.

To make this still more striking, I will take a little sugar; or to hasten the experiment, I will use some syrup, which contains about three-fourths of sugar and a little water. If I put a little oil of vitriol on it, it takes away the water, and leaves the carbon in a black mass. You see how the carbon is coming out, and before long we shall have a solid mass of charcoal, all of which has come out of sugar. Sugar, as you know, is food, and here we have absolutely a solid lump of carbon where you would not have expected it. And if I make arrangements so as to oxidize the carbon of sugar, we shall have a much more striking result.

Here is sugar, and I have here an oxidizer—a quicker one than the atmosphere; and so we shall oxidize this fuel by a process different from respiration in its form, though not different in its kind. It is the

combustion of the carbon by the contact of oxygen which the body has supplied to it. If I set this into action at once, you will see combustion produced. Just what occurs in my lungs—taking in oxygen from another source, namely, the atmosphere—takes place here by a more rapid process.

You will be astonished when I tell you what this curious play of carbon amounts to. A candle will burn some four, five, six, or seven hours. What then must be the daily amount of carbon going up into the air in the way of carbonic acid! What a quantity of carbon must go from each of us in respiration! What a wonderful change of carbon must take place under these circumstances of combustion and respiration! A man in twenty-four hours converts as much as seven ounces of carbon into carbonic acid; a milch cow will convert seventy ounces, and a horse seventy-nine ounces, solely by the act of respiration. That is, the horse in twenty-four hours burns seventy-nine ounces of charcoal, or carbon, in his organs of respiration, to supply his natural warmth in that time. All the warm-blooded animals get their warmth in this way, by the combustion of carbon, not in a free state, but in a state of combination.

And what an extraordinary notion this gives us of the alterations going on in our atmosphere. As much as 5,000,000 pounds, or 548 tons of carbonic acid is formed by respiration in London alone in twenty-four hours. And where does all this go? Up into the air. If the carbon had been like the lead which I showed you, or the iron which, in burning, produces a solid substance, what would happen? Combustion could not go on. As charcoal burns it becomes a vapour, and passes off into the atmosphere, which is the great

vehicle, the great carrier for conveying it away to other places. Then what becomes of it? Wonderful is it to find that the change produced by respiration, which seems so injurious to us (for we cannot breathe air twice over), is the very life and support of plants and vegetables that grow upon the surface of the earth. It is the same also under the surface, in the great bodies of water; for fishes and other animals respire upon the same principle, though not exactly by contact with the open air.

MICHAEL FARADAY.

Respiration.—Breathing. *Lat. re, back; spiro, to breathe.*

Alternately.—Regularly passing from one to the other of two things. *Lat. alter, one of two.*

Exhale.—To breathe out; *inhale, to breathe in.*

Evolue.—To give out. *Lat. e, out; volvo, to roll.*

Oxidize.—To unite with oxygen.

Combustion.—Burning. *Lat. uro, to burn.*

LESSON XXX.

EXECUTION OF CHARLES I.

On the last night of his life he slept soundly about four hours, and early on the morning awakened Herbert, who lay on a pallet by his bed-side. "This," he said, "is my second marriage day; I would be as trim as may be, for before night I hope to be espoused to my blessed Jesus." He then pointed out the clothes which he meant to wear, and ordered two shirts, on account of the severity of the weather; "for," he observed, "were I to shake through cold, my enemies would attribute it to fear. I would have no such

imputation. I fear not death—death is not terrible to me; I bless God I am prepared.”

The king spent an hour in privacy with the bishop; Herbert was afterwards admitted; and about ten o'clock Colonel Hacker announced that it was time to proceed to Whitehall. He obeyed, was conducted on foot between two detachments of military across the park (from St. James's Palace), and received permission to repose himself in his former bedchamber. Dinner had been prepared for him, but he refused to eat, though afterwards, at the solicitation of the bishop, he took half a manchet and a glass of wine. Here he remained almost two hours, in constant expectation of the last summons, spending his time partly in prayer, and partly in discourse with Dr. Juxon. There might have been nothing mysterious in the delay, if there was it might perhaps be explained from the following circumstance:—Four days had now elapsed since the arrival of ambassadors from the Hague to intercede in his favour; it was only on the preceding evening that they had obtained audience of the two houses, and hitherto no answer had been returned. In their company came Seymour, the bearer of two letters from the Prince of Wales, one addressed to the king, the other to the Lord Fairfax. He had already delivered the letter, and with it a sheet of blank paper, subscribed with the name, and sealed with the arms of the prince. It was the price which he offered to the grandees of the army for the life of his father. Let them fill it up with the conditions, whatever they might be, they were already granted; his seal and signature were affixed. It is not improbable that this offer may have induced the leaders to pause. That Fairfax laboured to postpone the execution was always asserted by his

friends; and we have evidence to prove that, though he was at Whitehall, he knew not, or at least pretended not to know, what was passing.

In the meantime Charles enjoyed the consolation of learning that his son had not forgotten him in his distress. By the indulgence of Colonel Tomlinson, Seymour was admitted, delivered the letter, and received the royal instructions for the prince. He was hardly gone, when Hacker arrived with the fatal summons. About two o'clock the king proceeded through the long gallery, lined on each side with soldiers, who far from insulting the fallen monarch appeared by their sorrowful looks to sympathise with his fate. At the end an aperture had been made in the wall, through which he stepped at once upon the scaffold. It was hung with black; at the farther end were seen the two executioners (masked and wearing large beards), the block and the axe; below appeared in arms several regiments of foot, and beyond, as far as the eye was permitted to reach, waved a dense and countless crowd of spectators. The king stood collected and undismayed amidst the apparatus of death. There was in his countenance that cheerful intrepidity, in his demeanour that dignified calmness, which has characterised, in the Hall of Fotheringay, his royal grandmother, Mary Stuart. It was his wish to address the people, but they were kept beyond the reach of his voice by the swords of the military; and therefore, confining his discourse to the few persons standing with him on the scaffold, he took, he said, the opportunity of denying, in the presence of his God, the crimes of which he had been accused; it was not to him, but to the houses of parliament, the war and all its evils should be charged. The parliament had first

invaded the rights of the crown by claiming the command of the army; and had provoked hostilities by issuing commissions for the levy of forces before he had raised a single man. But he had forgiven all, even those whoever they were (for he did not desire to know their names) who had brought him to his death. He did more than forgive them, he prayed that they might repent. But for that purpose they must do three things; they must render to God His due, by settling the church according to the scripture; they must restore to the crown those rights which belonged to it by law; and they must teach the people this distinction between the sovereign and the subject; those persons could not be governors who were to be governed, *they* could not rule whose duty it was to obey. Then, in allusion to the offers formerly made to him by the army, he concluded with these words: "Sirs, it was for the liberties of the people that I am come here; if I would have assented to an arbitrary sway, to have all things changed according to the power of the sword, I needed not to have come hither; and therefore I tell you (and I pray God it be not laid to your charge) that *I am the martyr of the people*;" having added, at the suggestion of Dr. Juxon, "I die a Christian, according to the profession of the Church of England, as I found it left me by my father." He said, addressing himself to the prelate, "I have on my side a good cause and a gracious God." "There is but one stage more," said the bishop, "it is turbulent and troublesome, but a short one; it will carry you from earth to heaven, and there you will find joy and comfort." "I go from a corruptible to an incorruptible crown," continued the king. "You exchange an earthly for an eternal crown—a good exchange," responded

the bishop. Being ready, the king bent his neck on the block, and after a short pause stretched out his hands as a signal; at that instant the axe descended, the head rolled from the body, and a deep groan burst from the multitude of the spectators. But they had no leisure to testify their feelings, two troops of horse dispersed them in different directions. Such was the end of the unfortunate Charles Stuart; an awful lesson to the possessors of royalty to watch the growth of public opinion, and to moderate their pretensions in conformity with the reasonable desires of their people.

LINGARD.

Imputation.—A charge implying some condemnation.

Solicitation.—Urgent request.

Manchet.—A kind of roll.

Audience.—Hearing. *Lat.* *audio*, to hear.

Aperture.—Opening. *Lat.* *aperio*, to open.

Dense.—Thick; e. g. The population was very dense.

Intrepidity.—Fearlessness in the presence of danger.

Hostilities.—Acts of war. *Lat.* *hostis*, an enemy.

Turbulent.—The opposite to quiet and peaceful.

Moderate.—To bring within measure, to diminish.

Conformity.—Agreement; e. g. They were once opposed, but are now brought into conformity.

LESSON XXXI.

THE THREE SONS.

I HAVE a son, a little son, a boy just five years old,
With eyes of thoughtful earnestness, and mind of gentle mould;
They tell me that unusual grace in all his ways appears,
That my child is grave and wise of head, beyond his childish
years.

I cannot say how this may be, I know his face is fair,
And yet his chiefest comeliness is his sweet and serious air;
I know his heart is kind and fond, I know he loveth me,
And loveth yet his mother more, with grateful fervency.
But that which others most admire is the thought that fills his
mind,

The food for grave inquiring speech he everywhere doth find.
Strange questions doth he ask of me, when we together walk ;
He scarcely thinks as children think, or talks as children talk ;
Nor cares he much for childish play, doats not on bat or ball,
But looks on manhood's ways and works, and aptly mimics all.
His little head is busy still, and oftentimes perplex'd
With thoughts about this world of care, and thoughts about the
next.

He kneels at his dear mother's knee, she teacheth him to pray,
And strange, and sweet, and solemn are the words which he will
say.

Oh! should my gentle child be spared to manhood's years like
me,

A holier and a wiser man I trust that he will be ;
And when I look into his eyes, and stroke his thoughtful brow,
I dare not think what I should feel, were I to lose him now.

I have a son, a second son, a simple child of three,
I'll not declare how bright and fair his little features be ;
How silver sweet those tones of his when he prattles on my
knee.

I do not think his light blue eyes are, like his brother's, keen,
Nor his brow so full of childish thought as his hath ever been ;
But his little heart's a fountain pure of kind and tender feeling,
And his very look's a gleam of light, rich depths of love
revealing.

When he walks with me, the country folks, who pass him in the
street,
Will shout for joy, and bless my boy, he looks so mild and
sweet.

A playfellow he is to all, and yet, with cheerful tone,
Will sing his quiet song of love, when left to play alone.

His presence is like sunshine, sent to gladden home and hearth,
 To comfort us in all our griefs, and sweeten all our mirth.
 Should he grow up to riper years, God grant his heart may prove
 As meet a home for heavenly grace, as now for earthly love ;
 And if beside his grave the tears our aching eyes may dim,
 God comfort us for all the love that we shall lose in him !

I have a son, a third sweet son, *his* age I cannot tell,
 For they reckon not by months and years, where *he* is gone to
 dwell ;

To us, for fourteen anxious months, his infant smiles were given,
 And then he bade farewell to earth, and went to live in heaven.
 I cannot tell what form is his, what looks he weareth now,
 Nor guess how bright a glory crowns his shining seraph brow ;
 The thoughts that fill his sinless soul, the bliss which he doth
 feel,

Are number'd with the secret things which God will not reveal.
 But I know, for God doth tell me this, that now he is at rest,
 Where other blessed infants be, on their Saviour's loving breast ;
 I know his spirit feels no more the weary load of flesh,
 But his sleep is blest with endless dreams of joy for ever fresh ;
 I know that we shall meet our babe, his mother dear, and I,
 When God himself shall wipe away all tears from every eye.
 Whate'er befalls his brethren twain, *his* bliss can never cease,
Their lot may here be grief and care, but *his* is certain peace,
 It may be that the tempter's wiles *their* souls from bliss may
 sever,

But if our own poor faith fail not, *he* must be ours for ever !
 When we think of what our darling is, and what we still may be,
 When we muse on that world's perfect bliss, and this world's
 misery,

When we groan beneath this load of sin, and feel this grief and
 pain,

Oh ! we'd rather lose our other two, than have him here again !

MOUTRIE.

Comeliness.—Beauty, charm.

Fervency.—Warmth. *Lat.* *ferveo*, to boil.

Seraph.—An angel. Plural, seraphim.

Wiles.—Cunning snares.

LESSON XXXII.

A DROP OF WATER ON ITS TRAVELS.

Part I.

ALTHOUGH we never see any water travelling from our earth up into the skies, we know that it goes there, for it comes down again in rain, and so it must go up invisibly. But where does the heat come from which makes this water invisible? Not from below, as in the case of the kettle, but from above, pouring down from the sun. Wherever the sun-waves touch the rivers, ponds, lakes, seas, or fields of ice and snow upon our earth, they carry off invisible water-vapour.

It has been calculated that in the Indian Ocean three-quarters of an inch of water is carried off from the surface of the sea in one day and night; so that as much as 22 feet, or a depth of water about twice the height of an ordinary room, is silently and invisibly lifted up from the whole surface of the ocean in one year. It is true this is one of the hottest parts of the earth, where the sun-waves are most active; but even in our own country many feet of water are drawn up in the summer-time.

What, then, becomes of all this water? Let us follow it as it struggles upwards to the sky. We see it in our imagination first carrying layer after layer of air up with it from the sea till it rises far above our heads and above the highest mountains. Well, as this water-laden air rises up, its particles, no longer so much pressed together, begin to separate, and as all work requires an expenditure of heat, the air becomes colder, and then you know at once what must happen to the invisible vapour,—it will form into tiny water-drops,

like the steam from the kettle. And so, as the air rises and becomes colder, the vapour gathers into visible masses, and we can see it hanging in the sky, and call it *clouds*. When these clouds are highest they are about ten miles from the earth, but when they are made of heavy drops and hang low down, they sometimes come within a mile of the ground.

Look up at the clouds as you go home, and think that the water of which they are made has all been drawn up invisibly through the air. Not, however, necessarily here in London, for air travels as wind all over the world, and so these clouds may be made of vapour collected in the Mediterranean, or in the Gulf of Mexico off the coast of America, or even, if the wind is from the north, of chilly particles gathered from the surface of Greenland ice and snow, and brought here by the moving currents of air. Only, of one thing we may be sure, that they come from the water of our earth.

Sometimes, if the air is warm, these water-particles may travel a long way without ever forming into clouds; and on a hot, cloudless day the air is often very full of invisible vapour. Then, if a cold wind comes sweeping along, high up in the sky, and chills this vapour, it forms into great bodies of water-dust clouds, and the sky is overcast. At other times clouds hang lazily in a bright sky, and these show us that just where they are the air is cold and turns the invisible vapour rising from the ground into visible water-dust, so that exactly in those spaces we see it as clouds. Such clouds form often on a warm, still summer's day, and they are shaped like masses of wool, ending in a straight line below. They are not merely hanging in the sky, they are really resting upon a tall

column of invisible vapour which stretches right up from the earth; and that straight line under the clouds marks the place where the air becomes cold enough to turn this invisible vapour into visible drops of water.

And now, suppose that while these or any other kind of clouds are overhead, there comes along either a very cold wind, or a wind full of vapour. As it passes through the clouds, it makes them very full of water, for, if it chills them, it makes the water dust draw more closely together; or, if it brings a new load of water-dust, the air is fuller than it can hold. In either case a number of water-particles are set free, and our fairy force "cohesion" seizes upon them at once and forms them into large water-drops. Then they are much heavier than the air, and so they can float no longer, but down they come to the earth in a shower of rain.

There are other ways in which the air may be chilled, and rain made to fall, as, for example, when a wind laden with moisture strikes against the cold tops of mountains. Thus the Khasia Hills in India, which face the Bay of Bengal, chill the air which crosses them on its way from the Indian Ocean. The wet winds are driven up the sides of the hills, the air expands, and the vapour is chilled, and forming into drops, falls in torrents of rain. Sir J. Hooker tells us that as much as 500 inches of rain fell in these hills in nine months. You will not be surprised that the country on the other side of these hills gets hardly any rain, for all the water has been taken out of the air before it comes there. Again, for example, in England, the wind comes to Cumberland and Westmoreland over the Atlantic, full of vapour, and as it strikes against

the Pennine Hills it shakes off its watery load ; so that the lake district is the most rainy in England, with the exception perhaps of Wales, where the high mountains have the same effect.

In this way, from different causes, the water of which the sun has robbed our rivers and seas, comes back to us, after it has travelled to various parts of the world, floating on the bosom of the air. But it does not always fall straight back into the rivers and seas again, a large part of it falls on the land, and has to trickle down slopes and into the earth, in order to get back to its natural home, and it is often caught on its way before it can reach the great waters.

Go to any piece of ground which is left wild and untouched, you will find it covered with grass, weeds, and other plants ; if you dig up a small plot you will find innumerable tiny roots creeping through the ground in every direction. Each of these roots has a sponge-like mouth by which the plant takes up water. Now, imagine rain-drops falling on this plot of ground and sinking into the earth. On every side they will find rootlets thirsting to drink them in, and they will be sucked up as if by tiny sponges, and drawn into the plants, and up the stems to the leaves.

Again, much of the rain falls on hard rock and stone, where it cannot sink in, and then it lies in pools till it is shaken apart again into vapour and carried off in the air. Nor is it idle here, even before it is carried up to make clouds. We have to thank this invisible vapour in the air for protecting us from the burning heat of the sun by day and intolerable frost by night.

Perhaps you would scarcely imagine at first that it is this screen of vapour which determines whether or

not we shall have dew upon the ground. Have you ever thought why dew forms, or what power has been at work scattering the sparkling drops upon the grass? Picture to yourself that it has been a very hot summer's day, and the ground and the grass have been well warmed, and that the sun goes down in a clear sky without any clouds. At once the heat-waves which have been stored up in the ground, bound back into the air, and here some are greedily absorbed by the vapour, while others make their way slowly upwards. The grass especially gives out these heat-waves very quickly, because the blades, being very thin, are almost all surface. In consequence of this they part with their heat more quickly than they can draw it up from the ground, and become cold. Now, the air lying just above the grass is full of invisible vapour, and the cold of the blades, as it touches them, chills the water-particles, and they are no longer able to hold apart, but are drawn together into drops on the surface of the leaves.

We can easily make artificial dew for ourselves. I have here a bottle of ice which has been kept outside the window. When I bring it into the warm room a mist forms rapidly outside the bottle. This mist is composed of water-drops, drawn out of the air of the room, because the cold glass chilled the air all round it, so that it gave up its invisible water to form dew-drops. Just in this same way the cold blades of grass chill the air lying above them, and steal its vapour.

Cohesion.—A force which draws particles of matter together, so as to form collective masses, requiring the application of fresh force to separate their parts anew. *Lat. hæreo*, to stick.
Intolerable.—Unendurable.

LESSON XXXIII.

A DROP OF WATER ON ITS TRAVELS.

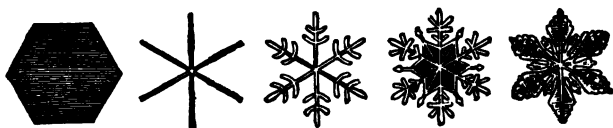
Part II.

BUT our rain-drop undergoes other changes more strange than these. Till now we have been imagining it to travel only where the temperature is moderate enough for it to remain in a liquid state as water. But suppose that when it is drawn up into the air it meets with such a cold blast as to bring it to the freezing point. If it falls into this blast when it is already a drop, then it will freeze into a hailstone, and often on a hot summer's day we may have a severe hailstorm, because the rain-drops have crossed a bitterly cold wind as they were falling, and have been frozen into round drops of ice.

But if the water-vapour reaches the freezing air while it is still an invisible gas, and before it has been drawn into a drop, then its history is very different. The ordinary force of cohesion has then no power over the particles to make them into watery globes, but its place is taken by the fairy process of "crystallization," and they are formed into beautiful white flakes, to fall in a snow-shower.

If we could travel up to the clouds where this fairy power of crystallization is at work, we should find the particles of water-vapour in a freezing atmosphere being built up into minute solid crystals of snow. If you go out after a snow-shower and search carefully, you will see that the snow-flakes are not mere lumps of frozen water, but beautiful six-pointed crystal stars, so white and pure that when we want to speak of anything being spotlessly white, you say that it is

"white as snow." Some of these crystals are simply flat slabs with six sides, others are stars with six rods or spikes springing from the centre, others with six spikes each formed like a delicate fern. No less than a thousand different forms of delicate crystals have been found among snow-flakes, but though there is



such a great variety, yet they are all built on the six-sided and six-pointed plan, and are all rendered dazzlingly white by the reflection of the light from the faces of the crystals and the tiny air-bubbles built up within them. This, you see, is why, when the snow melts, you have only a little dirty water in your hand; the crystals are gone and there are no more air-bubbles held prisoners to act as looking-glasses to the light. Hoar-frost is also made up of tiny water-crystals, and is nothing more than frozen dew hanging on the blades of grass and from the trees.

But how about ice? Here, you will say, is frozen water, and yet we see no crystals, only a clear transparent mass. Dr. Tyndall says that if you take a magnifying-glass, and look down on the surface of ice on a sunny day, you will see a number of dark, six-sided stars, looking like flattened flowers, and in the centre of each a bright spot. These flowers, which are seen when the ice is melting, are our old friend the crystal stars turning into water, and the bright spot in the middle is a bubble of empty space, left because the watery

flower does not fill up as much room as the ice of the crystal star did.

And this leads us to notice that ice always takes up more room than water, and that this is the reason why our water-pipes burst in severe frosts; for as the water freezes it expands with great force, and the pipe is cracked, and then when the thaw comes on, and the water melts again, it pours through the crack it has made.

We have now seen our drop of water under all its various forms of invisible gas, visible steam, cloud, dew, hoar-frost, snow, and ice, and we have only time shortly to see it on its travels, not merely up and down, as hitherto, but round the world.

We must first go to the sea as the *distillery*, or the place from which water is drawn up invisibly, in its purest state, into the air; and we must go chiefly to the seas of the tropics, because here the sun shines most directly all the year round, sending heat-waves to shake the water-particles asunder.

Now, when all this vapour is drawn up into the air, we know that some of it will form into clouds as it gets chilled high up in the sky, and then it will pour down again in those tremendous floods of rain which occur in the tropics.

But the sun and air will not let it all fall down at once, and the winds which are blowing from the equator to the poles carry large masses of it away with them. Then, as you know, it will depend on many things how far this vapour is carried. Some of it, chilled by cold blasts, or by striking on cold mountain tops, as it travels northwards, will fall in rain in Europe and Asia, while, that which travels southwards may fall in South America, Australia, or New Zealand, or

be carried over the sea to the South Pole. Wherever it falls on the land as rain, and is not used by plants, it will do one of two things; either it will run down in streams and form brooks and rivers, and so at last find its way back to the sea, or it will sink deep in the earth till it comes upon some hard rock through which it cannot get, and then, being hard pressed by the water coming on behind, it will rise up again through cracks, and come to the surface as a spring.

But if the vapour travels on till it reaches high mountains in cooler lands, such as the Alps of Switzerland; or is carried to the poles and to such countries as Greenland or the Antarctic Continent, then it will come down as snow, forming immense snow-fields. And here a curious change takes place in it. If you make an ordinary snowball and work it firmly together, it becomes very hard, and if you then press it forcibly into a mould you can turn it into transparent ice. And in the same way the snow which falls in Greenland and on the high mountains of Switzerland becomes very firmly pressed together, as it slides down into the valleys. It is like a crowd of people passing from a broad thoroughfare into a narrow street. As the valley grows narrower and narrower the great mass of snow in front cannot move down quickly, while more and more is piled up by the snowfall behind, and the crowd and crush grow denser and denser. In this way the snow is pressed together till the air that was hidden in its crystals, and which gave it its beautiful whiteness, is all pressed out, and the snow-crystals themselves are squeezed into one solid mass of pure, transparent ice.

Then we have what is called a "glacier," or river of ice, and this solid river comes creeping down till, in

Greenland, it reaches the edge of the sea. There it is pushed over the brink of the land, and large pieces snap off, and we have "Icebergs." These icebergs—made, remember, of the same water which was first drawn up from the tropics—float on the wide sea, and melting in its warm currents, topple over and over till they disappear and mix with the water, to be carried back again to the warm ocean from which they first started. In Switzerland the glaciers cannot reach the sea, but they move down into the valleys till they come to a warmer region, and there the end of the glacier melts, and flows away in a stream. The Rhone and many other rivers are fed by the glaciers of the Alps; and as these rivers flow into the sea, our drop of water again finds its way back to its home.—*Abridged from Miss Buckley's 'Fairy-land of Science.'* (Stanford.)

Distillery.—A place where the process of distillation is carried on. To distil is to let fall in drops. *Lat. stillo*, to drop.

Glacier.—A solid river of ice formed in elevated valleys amid mountains covered with perpetual snow. *Lat. glacis*, ice.

LESSON XXXIV.

A THRILLING ADVENTURE ON THE ICE.

IN connection with this locality, Swartz related to us quite a thrilling adventure he had had three years previously, while yet in the employ of the Russian-American Company. He was at that time making a short journey along this part of the coast with some Tungusians and reindeer. Coming to a deep indenture in the coast, to shorten their route they decided to strike across the bay upon the ice, which reached about two

miles out from land seaward. After effecting a crossing, upon reaching the farther shore they found their farther progress barred by a narrow lane of water lying between them and the beach, and, with the hope of finding a landing-place, retraced their steps, following along the edge of the ice. The farther they went the wider the breach became, when suddenly the truth flashed upon them in all its horror. The ice-field had loosened from shore and was drifting out to sea, carrying them with it. To add to their dismay, a strong land-breeze sprung up, increasing the speed of the ice, and covering the sea with white caps. This was all the more alarming, since the salt ice upon which they were adrift was so thin and rotten that, with two strokes, Swartz drove the blade of his sheath-knife entirely through it. As they drifted from beneath the lee of the land the water became much rougher, and their frail raft undulated with every swell, threatening momentarily to break to pieces. To increase their chances of escape, the deer were distributed over the surface of the ice, lest their weight should cause it to break up sooner.

By this time upward of two miles of open water intervened between them and land, and the gap was continually widening. Still they had not altogether abandoned hope, as the wind did not appear to increase in violence, though it blew bitterly cold. Suddenly a loud report, booming over the ice-field, reached the ears of the terrified party, and the next moment a large fissure disclosed itself within a few rods of where some of them were standing; this was but the commencement of the demolition. Report succeeded report, each proclaiming another division, until at length the whole neighbouring surface of the sea was crowded with cakes

of ice, large and small, grating and grinding together among the mad waves, and gradually encroaching upon the larger field, which as yet bore the travellers. At this time the party thought their destruction almost inevitable, yet dared to indulge in a little hope that the wind might change, and they be drifted back to land, or upon some island, before the ice should crumble beneath them.

But other dangers began to lower upon them. Beset upon the one hand by hunger and thirst, and upon the other by cold, with their frail ice-raft beneath them, there seemed but little chance of escape. Of fresh meat they had plenty, but no wood with which to build a fire either for cooking or warming themselves. The cold became intense, and the piercing winds even penetrated the thick fur clothing of the party. Nor could they obtain any water for quenching their thirst. Their deer were even worse off than they. Nothing could be done to alleviate the danger and misery of their situation; and clustering together behind a small ice-hummock, which partially protected them from the cutting wind, they silently awaited their fate. Night at length settled down upon the hopeless castaways, who were now many miles from shore, and still drifting seaward.

They threw themselves down upon the ice with the vain hope of drowning the sad reality of their position in a few hours of sleep, but their minds were too much racked with anxiety to admit of any such temporary relief. The deer would freeze fast to the ice whenever they attempted to lie down, and at length, through utter exhaustion, came and threw themselves upon the prostrate forms of the men in order to rest, it being almost impossible to keep them off.

After the second day at sea, some of these animals became so hungry or thirsty that they attempted to eat the ice from Swartz's beard while he lay asleep, and actually chewed off a portion of it. By this time the wind had died out, but land was hardly distinguishable in the far distance. They were constantly dreading lest a regular winter storm should arise, and complete the destruction of their now greatly diminished ice-raft.

This awful suspense continued during four long and cold days and nights, during which time the travellers subsisted, without water, upon dried fish, of which they fortunately had a small supply.

On the morning of the fifth day, aided by a providential current and wind, the ice-field struck a point of land about sixty miles below the mouth of the Uda River, and the party, completely overcome with weakness and hunger, barely had time to extricate themselves and deer before it once more swept out to sea. Four of the deer died just after the party reached land. With the remainder, four days were consumed in regaining the point from which they had started on their ice voyage. *'Among the Siberians,' by R. J. Bush.*

Indenture.—An opening. *Lat. dens, a tooth.*

Distribute.—To spread. *Lat. dis, apart, tribuo, to give.*

Intervene.—To come between. *Lat. inter, between, venio, to come.*

Demolition.—Destruction; e.g. In the demolition of the old house the workmen found some curious coins.

Alleviate.—To lighten. *Lat. levis, light.*

Hummock.—A slight eminence.

Exhaustion.—A condition in which all the powers of the body have been used up. *Lat. haurio, to exhaust.*

Prostrate.—Stretched out.

Extricate.—To get out of, to free from difficulties.

LESSON XXXV.

MARSTON MOOR.

To horse! to horse! Sir Nicholas, the clarion's note is high!
To horse! to horse! Sir Nicholas, the big drum makes reply!
Ere this hath Lucas marched, with his gallant cavaliers,
And the bray of Rupert's trumpets grows fainter in our ears.
To horse! to horse! Sir Nicholas! White Guy is at the door,
And the raven whets his beak o'er the field of Marston Moor.

Up rose the Lady Alice, from her brief and broken prayer,
And she brought a silken banner down the narrow turret-stair;
Oh! many were the tears that those radiant eyes had shed,
As she traced the bright word "Glory" in the gay and glancing
thread;

And mournful was the smile which o'er those lovely features
ran,
As she said: "It is your lady's gift; unfurl it in the van!"

"It shall flutter, noble wench, where the best and boldest ride
'Midst the steel-clad files of Skippon, the black dragoons of
Pride;

The recreant heart of Fairfax shall feel a sicklier qualm,
And the rebel lips of Oliver give out a louder psalm,
When they see my lady's gewgaw flaunt proudly on their wing,
And hear her loyal soldiers shout, 'For God and for the
King!'"

'Tis soon. The ranks are broken, along the royal line
They fly, the braggarts of the court! the bullies of the Rhine!
Stout Langdale's cheer is heard no more, and Astley's helm is
down,

And Rupert sheathes his rapier, with a curse and with a frown,
And cold Newcastle mutters, as he follows in their flight:

"The German boar had better far have supped in York to-
night."

The knight is left alone, his steel-cap cleft in twain,
His good buff jerkin crimson'd o'er with many a gory stain;

Yet still he waves his banner, and cries amid the rout:

"For Church and King, fair gentlemen! spur on, and fight it out!"

And now he wards a Roundhead's pike, and now he hums a stave,

And now he quotes a stage-play, and now he fells a knave.

God aid thee now, Sir Nicholas! thou hast no thought of fear;

God aid thee now, Sir Nicholas! for fearful odds are here!

The rebels hem thee in, and at every cut and thrust,

"Down, down," they cry, "with Belial! down with him to the dust!"

"I would," quoth grim old Oliver, "that Belial's trusty sword

This day were doing battle for the Saints and for the Lord!"

The Lady Alice sits with her maidens in her bower,

The gray-haired warder watches from the castle's topmost tower;

"What news? what news, old Hubert?"—"The battle's lost and won:

The royal troops are melting, like mists before the sun!

And a wounded man approaches—I'm blind and cannot see,

Yet sure I am that sturdy step my master's step must be!"

"I've brought thee back thy banner, wench, from as rude and red a fray

As e'er was proof of soldier's thew, or theme for minstrel's lay!

Here, Hubert, bring the silver bowl, and liquor quantum suff.

I'll make a shift to drain it yet, ere I part with boots and buff—

Though Guy through many a gaping wound is breathing forth his life,

And I come to thee a landless man, my fond and faithful wife!

"Sweet! we will find our money-bags, and freight a ship for France,

And mourn in merry Paris for this poor land's mischance:

For if the worst befall me, why, better axe and rope,

Than life with Lenthall for a king, and Peters for a pope!

Alas! alas! my gallant Guy!—curse on the crop-eared boor

Who sent me, with my standard, on foot from Marston Moor!"

WINTHROP MACKWORTH PRAED.

Clarion.—A trumpet.

Lucas.—A Royalist officer.

Rupert.—Prince Rupert and Prince Maurice were the sons of Charles I.'s sister, Elizabeth, who married the Elector Palatine of the Rhine.

Skippon and Pride were celebrated Parliamentary officers.

Recreant.—False, renegade. *Lat. re, back; credo, to believe.*
Recreant primarily meant one who had fallen away from the faith. Hence, a false wretch. Compare miscreant, which originally meant misbeliever.

Fairfax.—A famous Parliamentary general.

Oliver.—Oliver Cromwell.

Gewgaw.—A trumpery ornament. Here applied to the banner.

The bullies of the Rhine.—The German mercenaries who fought under Prince Rupert.

Langdale.—Sir Marmaduke Langdale, a Yorkshire Royalist.

Astley.—Sir Jacob Astley, one of the king's generals.

Newcastle.—The Earl of Newcastle.

The German boar.—Prince Rupert.

Jerkin.—A leathern jacket.

Belial.—The Puritans were fond of using Scriptural language, and are represented as identifying the cause of the king with the cause of Belial, i. e. of evil. Belial means worthless, wicked. 'A son of Belial' is a worthless or lawless fellow.

The Saints.—The Roundheads looked upon themselves as saints who were fighting for the Lord.

Quantum suff.—As much as is necessary.

Freight.—To lade.

Lenthal was Speaker of the House of Commons.

Peters.—A notorious Puritan divine.

LESSON XXXVI.

BATTLE OF NASEBY.

THE battle occurred in the middle of June 1645. Charles was at Harborough when he heard that Fairfax had drawn off from Oxford, and he resolved to advance towards him. The king and all about him were in high

spirits, fully believing that the parliament army was in a disorganized state, that the new model which had just been adopted was unsuccessful, and that he had but to appear, and victory would at once of necessity declare for him.

Charles advanced to Daventry, where he waited several days for more correct intelligence of the movements of the enemy. Intelligence came, but of another kind than he expected. Fairfax, he learned, was close at hand; he had reached Northampton with an army more considerable than had been reported to him, and in good condition. This being the case, he resolved to fall back upon Harborough, and from thence proceed as rapidly as he might to Leicester. Meanwhile Fairfax had not been idle. Anticipating an engagement, he had written to the parliament, requesting that Cromwell might be spared from his attendance at the House of Commons, in order to take command of the horse, an engagement being likely to happen speedily. On Friday (June 13), a council of war is summoned to determine what it is best to do. While the debate is going forward, a loud noise is heard in the camp. Cromwell is come! and "the horse gave a mighty shout for joy of his coming to them." He has brought, too, seven hundred of his own Ironsides with him—good men all—but himself a host. There is little hesitancy now. Onward is the word. An alarm soon reaches Harborough that the Roundheads are at hand—that they are quartered within six miles. No chance of reaching Leicester now—that is plain enough, whatever else is doubtful. "A council was presently called, and the former resolution of retiring presently laid aside, and a new one as quickly taken, 'to fight,' to which there was always an immoderate appetite

when the enemy was within any distance. They would not stay to expect his coming, but would go back to meet him. And so, in the morning early, being Saturday, the 14th of June, all the army was drawn up upon a rising ground of very great advantage, about a mile south from Harborough (which was left at their back), and there put in order to give or receive the charge." But they did not stay there. Fairfax had set out from his quarters by daybreak, and after a march of an hour or two, sees some of the king's troops on the high grounds before him. Charles had been led to move his troops from their former, and, as it should seem, preferable position, owing to his misconceiving the purport of some movements on the part of his adversary, and now had scarcely time to arrange his army before the enemy made signs of attacking him.

The position which the king's army had now taken is on the north-eastern side of Naseby field; the parliament's army occupies the hill about half a mile on the south. The deep hollow is between them. The order of battle is soon formed. On the king's side, Prince Rupert has the command of the right wing, Sir Marmaduke Langdale of the left, while the main body is commanded by Lord Ashley: the king being with the reserves, and having Lord Lindsay, Sir George Lisle, and others with him. On the opposite side, Cromwell commands the right, and Ireton the left wing; the centre is under the charge of the General (Fairfax) himself, and Major Skippon; Ramsborough, Hammond, and Pride commanding the reserves. Each party forms a line stretching across the field; the order of each is similar—the infantry being in the centre, with the cavalry as wings. Yonder hill, where the king's troops are, is Broad Moor; they have a warren on their left.

This, whereon the parliament's army is ranged, is Mill Hill; that, Fenny Hill on the left; a troop of Ireton's dragoons is behind the hedge that divides Naseby and Sulby Honours. Both armies are well placed; it is clear, though, that Cromwell has herein the advantage. He has secured such a position as to screen a considerable part of his men, by means of the broken ground, from the observation of the enemy, while he commands a full view of them, and can detect at once all their movements. In numbers there is little difference between them. In courage they are equal, but not in confidence. That "mighty shout" of the horse yesterday, when "Fairfax's invincible lieutenant" came, was it not a presage of victory? Fairfax himself, too, his looks were pale as death yesterday, but now he is all alacrity; "his soldiers see in his cheerful countenance the promise of victory." On the other side, the cavalry is full of assurance, but the infantry is hardly so hopeful. Those marchings and countermarchings, and constant changing of plans, do not speak well for their commanders' decision and clear-sightedness. A mighty difference; it is the hour of life or death, and they cannot confide in their leaders' firmness and foresight, on which both depend! But they are brave men, and will do bravely. The Royalists place bean-stalks in their hats; the others have no directions on the subject—a few, of their own accord, put up some white paper or linen, the rest carry no mark.

Thus, then, these twenty thousand men stand face to face on that fair summer morning, waiting for the word in order to fall upon each other. The broad moor glows with the broom in full flower,—its golden glory mingling with the lowlier blossoms of the heath. The wind blows sharply from the north-west, and there is

a little preparatory manœuvring to obtain the advantage of it. A few shots are fired from the scanty artillery on either side. And see, a forlorn hope of three hundred musketeers advances towards the royal army; its orders are to advance steadily, to wait in the vale until it is charged, and then fall back as steadily as it advanced. The battle is begun. Rupert with his right approaches the left of his opponents. He charges swiftly, terribly, crying, "Queen Mary!"* while the answering shout is, "God is our strength!" Brave is the meeting. Ireton is not made to yield; bravely is that fierce charge encountered, but it is irresistible. Ireton is borne down, his horse is killed, himself thrust through the thigh with a halberd, and wounded in the face; his eyes become dim, he is carried off a prisoner, and his troops fly swiftly, while Rupert's as swiftly pursue them. How fares it on the other wing? Has the Invincible given way? Not he. Langdale charged him, but he yielded not a step. His Ironsides charged in turn—like a torrent driving all before them. Down they push into that narrow valley, conquerors and conquered, but his clear eyes see when to stay the pursuit. He drives them fairly from the field, far enough to prevent them rallying, then he as quickly returns to it. Work is yet to do there, and he well knew his work is undone while anything remains to do,—scattered troops may rally, but the danger is from those who stand.

With those in the centre, there has been hot work. Ashley comes on with ready energy—there is one discharge on each side, and then, closing, they meet hand to hand, fighting with the butt-ends of their muskets. For a brief space this continues, then all of the Roundheads but Fairfax's own regiment give way. But they

* Queen Mary, i. e. Henrietta Maria, wife of Charles I.

rally. The general, bareheaded (for he lost his helmet in the first charge), with a "spirit heightened above the ordinary spirit of man," thinks not for a moment of retreat. He is "to and again in the front, carrying orders, bringing on divisions in thickest dangers, and with gallant bravery." Skippon, too, is busy; he brings on a troop that is not quite disorganized, but in doing it is shot in the side, "yet still leads them on." Nor will he quit the field though Fairfax desires him. "No, general, I will not stir," replies the brave old man; "I will not stir while a man will stand." But the disorder is too great to be remedied. Then the commanders with their colours, and such of the soldiers as are firm, fall into the reserves, order is re-established, and these fresh troops advancing, quickly compel the wearied Royalists to fly. Not all! there stands one regiment "like a rock." And again and again Fairfax charges, but they stand rock-like still, though their comrades have all deserted them; and though the king, for whom they are dying, stands with his untouched reserve idly on the hill there. What heed they? They know their duty, and will do it. Grievous is it to see brave men thus stand hopeless. Fairfax despatches Skippon with his regiment to the other side, and so with sharp shots, with heavy blows, they beat their way through that rock, and meet in the middle. It is battered down, crushed. But why stand those reserves idly there? Will decision never reach their counsels? The king will charge—is ready to do so—plainly must do so—is not the foot everywhere breaking? He places himself at the head of his guards, but the Earl of Carnwath, who rides next him, "lays his hand on the bridle of the king's horse, and with two or three foul-mouthed Scottish oaths, cries, 'Will you go upon your

death in an instant?' and before the king understands what he will have, turns his horse round." Straight flies the word—"The king runs, every one shift for himself!"—and without a blow—without advancing towards the field—all of that reserve fly as though the Invincible was indeed upon them.

But where tarries Rupert all this while? Alas! he is a gallant soldier, but not a wise one. He drove far the troops who fled before him—too far, but he returned at last. The foolish boy! he comes upon the train of his adversaries on his return, and must needs stay to take it. He wants trophies—his men want booty, and so they fall on there, while their fellows are being hewed to pieces in the field—clean forgotten! But the train is well guarded—Cromwell is not a careless soldier—and Rupert cannot make an impression upon it. Again he tries, but it is in vain. Again? No—"To the field." It is too late; all is lost there, and he has some difficulty in rejoining the king, who has rallied his reserves about half a mile beyond his old station. Meanwhile Cromwell had returned and completed the work of destruction in the field; then calling off their men, the generals put them again in order, and they advance ready for battle as at first.

Not so with the king's men. "One charge more and we regain the day," pleads he, and pleads in vain. Rupert's men declare they have acted their parts—the battle is over, they will not begin the day again. They have no "cause" to fight for. "This difference was observed shortly from the beginning of the war," Clarendon tells us, "in the discipline of the king's troops, and of those which marched under the command of Cromwell—that though the king's troops prevailed in the charge, and routed those they charged, they

never rallied themselves again in order, nor could be brought to make a second charge again the same day; whereas Cromwell's troops, if they prevailed, or though they were beaten and routed, presently rallied again and stood in good order till they received new orders." In vain, therefore, was it to entreat them to stand when they saw those men before them closing steadily upon them. They retreat slowly at first, but ever quickening till retreat becomes a chase for life or death. It was "extreme" hot work, as one who was in it said, and hot was the chase afterwards. "We pursued them," said Cromwell in his letter written directly after, "from three miles short of Harborough to nine beyond, even to sight of Leicester, whither the king fled." And now, when a peaceful peasant is digging a trench in some of the meadows, or by the road side, it often happens that his spade strikes upon the bones of one of those poor stragglers. From Naseby to Leicester—a weary sixteen miles for those miserable men. What was it to them that the fields were fair, that the trees were bending beneath their graceful foliage, that the gentle sun was sliding softly and in beauty towards the west?—they dared not even stoop to drink from the brook murmuring so gently by the wayside, heedless of all that bloody work. Frightful was the encounter, more terrible the flight.

THORNE.

Disorganized.—Not under perfect control.

Anticipate.—To expect; e. g. We were anticipating his arrival.

Immoderate.—Excessive. *Lat. modus*, a measure.

Invincible.—Unconquerable. *Lat. vinco*, to conquer.

Counter-march.—To march backwards.

Halberd.—A weapon combining axe and lance.

Trophies.—Symbols of victory.

Bally.—To re-form after being dispersed.

LESSON XXXVII.

THE BATTLE OF NASEBY.

A.D. 1645.

Oh ! wherefore come ye forth, in triumph from the North,
With your hands, and your feet, and your raiment all red ?
And wherefore doth your rout send forth a joyous shout ?
And whence be the grapes of the wine-press which ye tread ?

Oh evil was the root, and bitter was the fruit,
And crimson was the juice of the vintage that we trod ;
For we trampled on the throng of the haughty and the strong,
Who sate in the high places, and slew the saints of God.

It was about the noon of a glorious day in June,
That we saw their banners dance, and their cuirasses shine,
And the Man of Blood was there, with his long essenced hair,
And Astley, and Sir Marmaduke, and Rupert of the Rhine.

Like a servant of the Lord, with his Bible and his sword,
The General rode along us to form us to the fight,
When a murmuring sound broke out, and swell'd into a shout,
Among the godless horsemen upon the tyrant's right.

And hark ! like the roar of the billows on the shore,
The cry of the battle rises along their charging line !
For God ! for the Cause ! for the Church ! for the Laws !
For Charles King of England and Rupert of the Rhine !

The furious German comes, with his clarions and his drums,
His bravoos of Alsatia, and pages of Whitehall ;
They are bursting on our flanks. Grasp your pikes, close your
ranks ;
For Rupert never comes but to conquer or to fall.

They are here ! They rush on ! We are broken ! We are gone !
Our left is borne before them like stubble on the blast.
O Lord, put forth thy might ! O Lord, defend the right !
Stand back to back, in God's name and fight it to the last.

Stout Skippon hath a wound ; the centre hath given ground :

Hark ! hark ! What means the trampling of horsemen on
our rear ?

Whose banner do I see, boys ? 'Tis he, thank God, 'tis he, boys.

Bear up another minute : brave Oliver is here.

Their heads all stooping low, their points all in a row,

Like a whirlwind on the trees, like a deluge on the dykes,

Our cuirassiers have burst on the ranks of the Accurst,

And at a shock have scattered the forest of his pikes.

Fast, fast, the gallants ride, in some safe nook to hide

Their coward heads, predestined to rot on Temple Bar :

And he—he turns, he flies :—shame on those cruel eyes

That bore to look on torture, and dare not look on war.

Ho ! comrades, scour the plain ; and, ere ye strip the slain,

First give another stab to make your search secure,

Then shake from sleeves and pockets their broad pieces and
loquets,

The tokens of the wanton, the plunder of the poor.

Fools ! your doublets shone with gold, and your hearts were
gay and bold,

When you kissed your lily hands to your sweet-hearts to-day ;

And to-morrow shall the fox, from her chambers in the rocks,

Lead forth her tawny cubs to howl above the prey.

Where be your tongues that late mocked at heaven and hell
and fate,

And the fingers that once were so busy with your blades,

Your perfumed satin clothes, your catches and your oaths,

Your stage-plays and your sonnets, your diamonds and your
spades ?

Down, down, for ever down with the Mitre and the Crown,

With the Belial of the Court, and the Mammon of the Pope ;

There is woe in Oxford halls ; there is wail in Durham's stalls :

The Jesuit smites his bosom : the Bishop rends his cope.

And She of the seven hills shall mourn her children's ills,
 And tremble when she thinks on the edge of England's
 sword;
 And the kings of earth in fear shall shudder when they hear
 What the hand of God hath wrought for the Houses and the
 Word.
 LORD MACAULAY.

Oh ! wherefore come ye forth.—The question is supposed to be addressed by a Roundhead to Parliamentarians returning victorious from the battle. The Scriptural phraseology of the first two stanzas was suggested by Isaiah lxiii. 1-6.

The Man of Blood.—Charles I. The Parliamentarians threw the whole responsibility of the war upon the king.

Long essenced hair.—The Royalists wore their hair long and scented it with essences.

Sir Marmaduke Langdale and Astley were famous Royalist generals.

Rupert of the Rhine.—Prince Rupert, son of the Elector Palatine of the Rhine.

The General.—Sir Thomas Fairfax.

Bravoes.—Mercenaries ready to fight for any cause for which they were paid.

Alsatia.—A province bordering on the Rhine, to the east of France. The name is here applied to Whitefriars, a district in London, which was formerly a favourite haunt of law-breakers of all sorts.

Whitehall.—Here was a royal palace.

Skippon.—Major Skippon, a famous Parliamentarian officer.

Cuirassiers (pronounce *oweerasseers*).—Soldiers protected by a breastplate of leather plated with iron. *Fr. cuir*, leather.

Temple Bar.—A gate admitting to the City of London on the west. On it the heads of traitors were formerly exposed.

Catches.—The catch was a kind of round.

Your diamonds and your spades.—Cards. The Puritans looked with horror on stage-plays, light literature, and card-playing.

The mitre.—Episcopacy. Bishops wear a mitre.

Belial.—The impersonation of evil.

The Jesuit.—Charles I. was suspected of intriguing with Rome for the restoration of the Roman Catholic religion.

Cope.—An ecclesiastical vestment.

She of the seven hills.—Rome is built on seven hills.

The Houses.—The Houses of Parliament.

LESSON XXXVIII.

MY MONKEY JACKO.

Part I.

AFTER some amount of bargaining, Jacko (for such was the name of the monkey) became transferred, chain, tail, and all, to his new English master. Having arrived at the hotel, it became a question as to what was to become of Jacko while his master was absent from home. A little closet, opening into the wall of the bedroom, offered itself as a temporary prison. Jacko was tied up *securely*—alas! how vain are the thoughts of man!—to one of the row of pegs that were fastened against the wall. As the door closed on him, his wicked eyes seemed to say, "I'll do some mischief now;" and sure enough he did, for when I came back to release him, the walls, that but half an hour previously were covered with a finely-ornamented paper, now stood out in the bold nakedness of lath and plaster; the relics on the floor showed that the little wretch's fingers had by no means been idle. The pegs were all loosened, the individual peg to which his chain had been fastened, was torn from its socket, so that the destroyer's movements might not be impeded, and an unfortunate garment that happened to be hung up in the closet was torn to a thousand shreds. If ever Jack Sheppard had a successor, it was this monkey. If he had tied the torn bits of petticoat together, and tried to make his escape from the window, I don't think I should have been much surprised.

It was, after Jacko's misdeeds, quite evident that he must no longer be allowed full liberty, and a lawyer's

blue bag, such as may be frequently seen in the dreaded neighbourhood of the Court of Chancery—filled, however, more frequently with papers and parchment than with monkeys—was provided for him; and this receptacle, with some hay placed at the bottom for a bed, became his new abode. It was a moveable home, and therein lay the advantage, for when the strings of it were tied, there was no mode of escape. He could not get his hands through the aperture at the end to unfasten them, the bag was too strong for him to bite his way through, and his ineffectual efforts to get out only had the effect of making the bag roll along the floor, and occasionally make a jump up into the air, forming altogether an exhibition which, if advertised in the present day of wonders, as "The Living Bag," would attract crowds of delighted and admiring citizens.

In the bag aforesaid he travelled as far as Southampton on his road to town. While taking the ticket at the railway-station, Jacko, who must needs see everything that was going on, suddenly poked his head out of the bag, and gave a malicious grin at the ticket-giver. This much frightened the poor man, but with great presence of mind, quite astonishing under the circumstances, he retaliated the insult, "Sir, that's a dog; you must pay for it accordingly." In vain was the monkey made to come out of the bag, and exhibit his whole person; in vain were arguments in full accordance with the views of Cuvier and Owen, urged eagerly, vehemently, and without hesitation (for the train was on the point of starting), to prove that the animal in question was not a dog, but a monkey. A dog it was in the peculiar views of the official, and three-and-sixpence was paid. Thinking to carry the

joke further (there were just a few minutes to spare), I took out from my pockets a live tortoise I happened to have with me, and, showing it, said, "What must I pay for this, as you charge for *all* animals?" The official adjusted his specs, withdrew from the desk to consult with his superior; then returning, gave the verdict with a grave but determined manner, "No charge for them, sir; them be insects."

When Jacko arrived at his ultimate destination in England, a comfortable home was provided for him in the stall of a stable, where there was an aperture communicating with the hay-loft, so that he could either sleep at his ease in the regions above, or, descending into the manger, amuse himself by tearing to pieces everything he could get at. This stall was usually unoccupied, except by his serene monkeyship; but he was not destined to remain lord of the manor in perpetuity. One cold winter's evening, when the snow lay thick on the ground, the family donkey was brought up from the field, where it was endeavouring to keep itself warm by the side of a haystack, and placed in these more comfortable quarters. A plentiful supper of hay was placed before the hungry animal, which it began to devour with great eagerness. About an hour after, the groom happened to go into the stable to see that all was right. What was his great astonishment to see Jenny, without any apparent cause, pulling away at her halter, and trying to keep her head as far away as possible from the bundle of hay, which had suddenly acquired some invisible noxious properties.

Not knowing what to make of it, the man gave the poor donkey a blow, to make it "come up," in the stable parlance; no sooner had the long ears approached the hay than the mystery was explained. A tiny pair of

hands were suddenly thrust out from under the cover, and the ears seized; at the same moment master Jacko's face appeared, chattering his teeth as though he had an attack of ague, and as quick as thought their sharp points met in the unfortunate Jenny's aural appendages. Jenny instantly retreated with force enough almost to break the halter, and Jacko covered himself up again in the hay, keeping, however, a small opening clear, through which he could observe the movements of the enemy. The little rascal, from the hole in the loft, had seen the hay spread out by the man, and thinking it would make a capital warm bed for himself, had quietly taken possession, quite regardless of the inward cravings of poor Jenny, who would, if she dared, have most greedily devoured the monkey's bedclothes. I remember well in an old *Æsop's* fable-book, illustrated with quaint woodcuts, the fable of "The dog in the manger," and also a pictorial representation (certainly not after Landseer) of this same well-known event, but I never had hoped to see the actual drama performed by two quadrupeds. I must not, however, omit to say, that I, and doubtless the reader also, have frequently seen a very fair representation of this scene admirably performed by two bipeds. If Jacko had lived in the time of *Æsop*, doubtless the former would have been immortalized by the latter, and "The monkey in the manger" been as familiar in our mouths as "The dog in the manger." It is, however, a curious fact, that this monkey, at the same time that he conceived so great an animosity against the donkey, took a great liking to a dun pony of a neighbour, who, on paying his visits, usually tied him up on Jacko's territory. On these occasions Jacko seemed delighted to see his four-footed ally, running

frantically about as far as his chain would allow him, and when the pony was fastened up, and the corn placed before him, jumping on his back and nestling down there, or searching eagerly in the mane for imaginary parasites.

When sitting on the manger, Jacko had one peculiar amusement, and that was catching mice. These unsuspecting little animals would come out to pick up the corn left by the horses in the next stall. To get at their feeding-ground they had to run the gauntlet of Jacko's premises. He was up to this, and would pretend to be asleep, keeping, however, one eye half open. The trick answered, the mouse made a rush—in vain; Jacko, as quick as lightning, had his paw upon him, and with a tight squeeze crippled the poor little brute; he would then play with him for some minutes, every now and then giving him a pat to make him go faster. When the poor victim thought he had got away, Jacko caught him again, made a complete search through his hair for parasites, and then ate him up (as a child described it to me) like a sugarplum. The fun over, he would again assume his manœuvres and catch another member of the mouse family, to be treated in a similar way as the last unfortunate. In this way I have known him catch as many as seven or eight mice in one afternoon. The servants, having observed Jacko's talent in this line, bethought themselves that they would turn it to some account; and as the cat of the house was ill, and unable to perform her duties, they one evening took poor Jacko out of his comfortable bed in the loft, and chained him up in the larder, having previously removed every eatable or drinkable thing, except some jam-pots, which were put seemingly out of reach, and, moreover, were well secured with bladder

stretched over the tops. The night passed long and miserably to poor Jacko, who was evidently much astonished at this unwonted treatment. All night long the mice scampered about the place, regardless of their enemy, while he, most uncatlike, was coiled up in a soup tureen fast asleep. The morning waned, the mice retired to their holes; Jacko awoke, scratched his shivering hide, and having first pushed the tureen, his bed, from the shelf, to its utter demolition, looked about for something to eat. The jam-pots attracted his notice. "There is something good here," thought he, as he smelt the coverings. "I'll see." His sharp teeth soon made an aperture; he was not disappointed. The treasured jams, raspberry, strawberry, plum, the vaunted Scotch marmalade, the candied apricots, the pride and care of the cook, disappeared in an unaccountably short time down into the seemingly small gullet of the sweet-toothed Jacko. Not if I had a hundred mouths and a hundred tongues could I describe the imprecations hurled at the devoted head of the now sick and overgorged gourmand by the disappointed and illogical cook, the owner of the jams, as she opened the door of the larder at breakfast time to see how many mice the monkey had caught. Great was the anger of the female gaoler; great the malicious grins of the captive.

Some few days after this jam affair, Jacko, having been reinstated in favour, was warming himself before the kitchen fire. A cricket that had been singing merrily in the ashes came a little too far out on to the hearthstone: his fate was sealed—the next jump he made was down the throat of Jacko, who munched him up as an epicure does the leg of a woodcock. The next tit-bit was a blackbeetle, who ran out to secure a crumb dropped from the servants' supper-table: he,

too, became a victim to his rashness ; and not he alone, but many of his black friends and relatives, who incautiously exposed themselves before the candles were put out. Having ascertained that these beetles were enjoyed by Jacko, I one day gave him a great treat by upsetting the kitchen beetle-trap in his presence. Both paws instantly went to work—whole bunches of the unfortunate insects he crammed into the pouches (which he, like most other monkeys, has on each side of his mouth, and which serve as pockets), munching away as hard as he could, at the same time. His paws could not catch the prey fast enough, so he set his feet to work, and grasped with them as many as he could hold. This was not enough. He swept a lot together with his tail, and, coiling it up closely, kept them there close prisoners till his mouth was a little empty, and he had time to catch and devour them. This was really too greedy. I took him away from the feast, still, however, munching with all his might, and looking back at the box with wistful eyes. If we wanted at any future period to make him in a good humour, his flagging spirits were instantly roused by the sight of the beetle-trap.

Receptacle.—A place in which things are stowed away.

Cuvier.—A great French naturalist.

Owen.—Professor Owen, one of our greatest living naturalists.

In perpetuity.—For ever.

Noxious.—Offensive. *Lat. noceo*, to injure.

Parlance.—Language ; e. g. In sailor's parlance, a light is called a "glim."

Aural.—Belonging to the ear. *Lat. auris*, an ear.

Appendage.—Something added. *Lat. pendeo*, to hang.

Animosity.—A strong ill-feeling.

Parasite.—A creature that lives upon another creature. Originally applied to the hangers-on who sat at the table of some wealthy person.

Demolition.—Destruction.

Gullet.—The passage through which food is conveyed from the mouth to the stomach.

Gourmand.—A person who takes too great delight in what he eats and drinks; an epicure.

Part II.

Almost all monkeys have pouches in their cheeks. I recollect, one Saturday night, hearing a man who was selling riddles at a penny per yard, in long slips of paper, in the neighbourhood of Westminster, propose the following enigma, as a specimen of the best of the pennyworth—"Why does a dog carry a bone in his mouth?" He volunteered the answer immediately afterwards:—"Because he has no pocket to put it in." Now the monkey, like the dog, carries his food in his mouth; but that mouth contains a pocket. The skin of the cheek is very loose; when empty it falls in wrinkles, which gives the "old-man like" appearance to his face. In this natural pocket he places his food, and keeps it there till he wishes to devour it. Now this is a beautiful provision given to the monkey by its all-wise Creator. Trees are the monkey's proper habitat, but he often descends to the ground to get roots, and to catch beetles under the stones. While his attention is taken up by looking for his food, he might be surprised by his enemy, and be obliged to make a precipitous retreat, so, as he catches his beetles, he puts them in his pouch; and thus he can carry off his earnings with him if surprised; or, if not surprised, can take them up to his home, the top of a tree, to devour them at his leisure. I find a manuscript note

to the effect that the monkeys which live on the rock of Gibraltar have, in course of time, somewhat altered the features of the ravines about, by rolling stones down from the heights, in their search for insects, which they find underneath. Thus a formation is made which would be difficult to account for by any ordinary geological theory.

But not only does the monkey make use of the pouch in his cheeks when hard pressed; the creature next above him in the scale of creation does the same thing, as proved by the following observed circumstance:—

Passing one day along the Strand, on an omnibus, two ragged urchins came running alongside. In an instant one of them sat down on the pavement, and the other turned a very clever summersault over him, their hands just touching in mid-flight. I observed that one cheek of the boy who jumped over the other projected considerably: I suspected the cause, and threw down a halfpenny; in a moment the boy put it in his mouth, and with a dexterous twitch of his tongue, lodged it within his cheek. Anxious to carry out the experiment, I continued throwing down coppers to him, stipulating that he should perform a summersault for every copper, which he readily did. Every penny and halfpenny went into his mouth, till at last his cheeks looked ready to burst. At length we came to a halt at Charing Cross, and I gave him a threepenny piece to show me what he had in his mouth. He quickly turned out all his earnings, consisting of fourpence halfpenny in coppers, and one bit of silver. The poor little fellow seemed mightily pleased with the contents of his mouth. I asked him why he put his money in his mouth. "Because, sir, I have no pockets; and if I had, my money would fall out when I turn

over," was the reply. "It's a wonder he don't get cancer in his mouth," was the remark of the driver of the 'bus, a very fatherly-looking man. A fine specimen of muscular development and perfect figure did this little, hard-working, active child of eleven exhibit—uncramped by clothes, and always in high training for running. Nature had in his person her full development; and a marvellous and beautiful form she had produced in this specimen of a neglected English boy.

As a contrast to this boy, I recollect, when walking one cold and wet day in the neighbourhood of St. Giles's, passing a baker's shop, and remarking how, from the heat of the oven below, the stones in front of the shop quickly dried, when all the paving-stones around remained quite wet and muddy. As I stood looking at the dry stones, a poor little, miserable, shivering boy, very slightly clad, and looking very ill, came wandering by: he, too, saw the dryness of the stones, but he went a step farther in his inquiry than I, for he felt them with his hand, and immediately lay down on them at full length, close under the window, to get all the warmth he could. At the same time he cried to another little boy who was on the other side of the road, "Come along, Billy; here's a nice warm stone." Billy came, and warmed himself on the stone by the side of his friend. A warm roll a-piece from the baker's shop made them both for the time happy. I have heard of sailors, when on deck all night, pricking the boards to find a soft place to sleep on. The theory is exemplified by the boy's choice of a stone to warm himself by.

Jacko's insectivorous propensities were not confined to blackbeetles alone. Spiders formed a pleasant variety; not a spider was left alive either in the stable

or outside the stable where he was confined; and most enormous stones would he pick out of this wall with his little fingers, in search of a runaway web-spinner. He was really of great use in clearing the house of this housemaid's pest. I often used to put a bit of string to the end of his chain, and make him run up the curtains of the rooms of the house. He would then completely rummage out and devour every spider, who, having had their webs so frequently knocked down by the relentless broom, had thought to spin them in security on the top of the cornices and among the curtain-rods.

On one of these occasions, he watched his opportunity, and suddenly snatching the string out of my hand, straightway bolted out of the window, the top part of which happened to be open. Away he went, the chain held up aloft in his tail, as was his wont when he found it in his way, over the garden wall, down the village road, up into the village. The parish school turned out from their lessons at this moment, and a regular pursuit took place: the boys shouted and threw up their parochial caps, the girls did not know whether to laugh or be frightened. In an instant Jacko was on the top of the nearest cottage, and returned the derisive shouts of the boys by angry and incessant chattering; he grinned from ear to ear, and showed an array of sharp teeth, as much as to say, "Touch me if you dare." His hair was all erect—as was always the case when he was alarmed or excited—so that he looked double his natural size, and he shook his tail in angry defiance. The numerous stones and sticks thrown at him in fun by the boys (for they knew him well, and did not want to hurt him) soon made him decamp, and off he went along the roofs of the cottages,

his chain making a fearful clatter on the tiles, to the alarm of the aged inmates sitting at their ease within. The crowd collected, the excitement became immense; the police were not called out, because there is only one constable; he, being a baker, turned out in his white cap, and sleeves tucked up, armed with the official wand of office, determined to take up somebody. Next came the churchwarden: "Lay hold of the rascal, boys," cries he, "and we will put him in the pound." "Likely I'll stay there," clatters Jacko, "and, moreover, you must catch me first," and off he goes again, followed by the whole village. The fun gets warm, Jacko begins to repent, jumps on to a tree, and slips down one side while the boys are watching on the other. He bounds across the road, over the garden gate, through the broken stable-window, to his own bed in the hayloft, where he lies, his eyes closed, his little sides ready to burst from running, and his mouth half open. Doubtless, at this moment he came to the determination never to leave home again, for he certainly never did, and likewise to have his revenge upon the parish boys for persecuting him, for from this day he always flew at, and tried to bite, any boy wearing the parochial livery.

I had at one time a very large fine ape, which was caught, when quite young, on the rock at Gibraltar. This monkey is still alive and well, and lives in the garden of a friend of mine at Clapham. Poor Jenny has now lived out of doors day and night, summer and winter, for the last seven or eight years, and has never had a day's illness. She has a dog-kennel into which she can retire at will, but until lately she did not often make use of it. She is getting old now, and feels the weather more than she did formerly. Her coat in

winter is wonderfully thick, and she has an enormous quantity of hair round her face, like a beard and moustachios all in one. Once I had a terrible fight with her: it was soon after she came into my possession, and she was not aware that I intended to be master. She began to chatter at me and make faces, so I threatened her with a stick. In an instant she came at me like a bull-dog, and gave me a sharpish bite. I caught her round her neck immediately, and gave her such a shaking as she never had before or since. I made her quite giddy, but I never struck her; I then put her down gently, and patted her: she never flew at me again. One day, when I was mending her chain, she watched the opportunity, and jerked it out of my hand; in a moment she was up at the top of her pole, and, finding herself loose, made off as fast as she could. She climbed up a water-pipe, and got on to the roof of the Deanery. After a hunt there, she bolted down on to the top of the Chapter-house, and thence along a wall to the top of the houses on the west side of Dean's Yard. Here she sat on the coping, chattering at me. I ran back for my coat and hat, but when I returned she was nowhere to be seen. I ran round into the street, and found an immense crowd collected, shouting and throwing at her. Fearing she would be hurt, I determined to try to catch her again. Some bricklayers' tall ladders were placed not far off, so I went up the longest; it did not quite reach to the height of the house, and shook fearfully with my weight as I neared the top. I then wished for the agility of Jenny; but determining not to be beat, I managed to climb on to the roof of the house, and by getting round the chimney-pots, succeeded in getting close up to her. Though her attention was quite taken up with the

people below, she heard me coming, and made off again. I pursued her over the roofs of several other houses, but could not get near her. At one time her chain, which was still attached to her neck, hung down over a window below. Without making any gesture, I said to a woman who was looking out of a window, "Please put your hand out and catch hold of that chain." She attempted to do so, but Jenny, who was too quick for her, hauled it up hand over hand, as a sailor does a rope, and was off again. This is curious, because I was careful to make no motion or sign of my intentions, and merely spoke the words. The monkey seemed to understand what I said, for she hauled up her chain, even before the woman put her hand out of the window (which was already open) to catch hold of it.

After a long and tiresome chase, I drove her up to the end of the houses close by Dean's Yard. Here I thought I had her, but she made a most frightful jump on to some leads below. I expected she would have fractured some of her limbs, but she merely shook herself, and was off again. However, by this time she had had enough, for she ran along the pavement right away home to her pole; and there quietly awaited my arrival to tie her up again. I don't know which was the blackest, Jenny or I, after our trip among the chimneys. At Clapham she again got loose, and lived several days up among some high trees. Nothing would persuade her to come down, and no sooner did a man climb up into one tree, than she jumped on to the next. At last matters came to extremes: a gun loaded with a few shots was fired at her. She received a shot in her body, and thus learned that the gun could hurt her. After this, whenever it was pointed at her, she crouched down on a branch, so that it was very difficult to hit

her. At length, after repeated firings, she became so frightened and subdued that she seemed to have lost all presence of mind, and allowed a man to get on the tree and catch her.

Three years ago, when passing through Leadenhall market, I saw in a hen-coop a pretty little cub fox, and began to ask questions about him. The man said if I wanted a fox "he could show me some more"; accordingly I went with him to the back of the shop, and he lifted up the lid of a large, shallow, square box. To my astonishment, this box was as full of cub foxes as it could hold. There were from fifteen to twenty little beauties, all crowded together in one corner, and their small bright eyes shone like diamonds. I picked out the finest of the lot, and took him home. The little brute got loose in the night, and it took me an hour the next day to catch him again, as he got into the cellar among empty boxes, potatoes, and wine bins. The next day I sent him off to a friend at Clapham; but in a few days he slipt his collar again, and got loose, wandering about the neighbourhood of Clapham many weeks. Wires were set for him in the same manner that poachers set them for hares, and the fox was taken several times in these wires, but he generally managed to escape. At last he got into a stack of wood, and there he was, with difficulty, captured. On examination, a bit of wire was found sticking out of the skin close to his hind leg, and apparently firmly fixed in the flesh. After some pulling at it, it became evident that there was a wire firmly fixed round his loins, for the poor brute's body was contracted into an hour-glass form. The poor animal had been caught in it some weeks previously, and had by its struggles broken it off from the stick by means of which it was fastened to the

ground. The wire had been so tightly drawn that it had eaten its way right into the flesh, and the skin and the hair had grown over it, so that its presence was indicated only by a hard line under the skin. The wire was taken out, and the fox is alive and well, but still retains an hour-glass shape, the result of his adventure.

Jacko once got loose again. Remembering his previous adventure with the school-boys, he ventured not beyond the premises, but quietly sneaked into the knife-house, and tried his hand at cleaning the knives. In this attempt he was evidently not successful, inasmuch as the handles were the parts he attempted to polish on the brick-board, and a cut was found in the middle of his hand the next day. Resolved, however, not to be defeated, he set to work to clean the shoes in imitation of the man William, his kind and indulgent keeper here. Again, he had not distinctly recollected the various steps necessary for the right performance of the operation, for he covered an unfortunate shoe all over, sole and all, with the blacking which he got out of the blacking bottle, and then he emptied what was left of the precious Day and Martin into the hollow of the shoe, nearly filling it: his coat was in a nice mess for some days afterwards. One morning, again, when the servants returned from the parlour into the kitchen, they found Jacko had taken all the kitchen candlesticks out of the cupboard and arranged them on the fender, before the fire, as he had seen done before. Finding the blacklead in the same place, he took it to a bowl of water which was at hand, wetted it, and was diligently rubbing the table all over with it when he was caught in the act. On the entrance of the servants, he immediately retreated to his basket in the corner, and tried to look as though nothing had happened. A great

treat to this would-be kitchenmaid was to have a large bowl of warm water given him. He would first of all cunningly test the temperature with his hand, and then gradually step into the bath, first on one foot and then the other, finally, completely sitting down in it. Comfortably placed, he would then take the soap in his hands or feet, as the case might be, and rub himself all over. Having made a dreadful mess on the table, and finding the water becoming cold, the next part of the play was to get out and run as quickly as he could to the fire, where his coat soon became dry. If anybody laughed at him during this performance, he would chatter and grin at them, and frequently even splash water out of the bath towards and sometimes over them.

There was a story told of this pattern of cleanliness in animals, for the truth of which I cannot vouch, but it is, that Jacko one day nearly committed suicide in a most extraordinary way, namely, by boiling himself to death. The large kitchen kettle was left on the fire to boil for tea; after a time Jacko jumped up and took the lid off. Finding it becoming warm, he got in and sat down with his head only appearing above the water. This was all very comfortable for some little time, but the water, heated by the flames beneath, began to get hot: Jacko raised his body a little, but finding it very cold, immediately sat down again. This he continued for some time, never having, or rather being able to summon up the courage to face the cold air. The consequence was that the poor little wretch was nearly boiled to death, and, if it had not been for the timely interference of a bystander, who took his parboiled carcase out by main force—for he never would have got out of his own accord—he would have become a

martyr to his own want of pluck and firmness in action.

Monkeys very frequently eat their own tails: it would seem that captivity is not a favourable state for the development of that organ. I once bought a monkey for a few shillings, whose tail was in a very bad condition. This animal had naturally a long tail, but had lost a considerable portion, and what remained was as hard, and as dry, as an old stick from a hedge-row. Not liking the appearance of this, I gave the monkey an apple to eat, and while his attention was thus taken up, I proceeded to cut away his tail with a sharp knife, joint by joint. During the operation, he looked on quietly and composedly, as I removed bit by bit, about three inches. He did not feel it in the least, and seemed rather satisfied than otherwise. At last, as I approached to that portion of the tail which was still alive, I proceeded very cautiously; but unfortunately, not enough so, for I touched a tender bit, which was not dead. The monkey dropped his apple, and scampered round and round the room, chattering furiously, till the pain was over; he then quietly sat down, and inspected his tail, holding it between his hands. He seemed none the worse for the operation, and was certainly improved in personal appearance.

If phrenologists had made out that there was a part of the brain especially devoted to mischief, I am certain that it would have been found largely developed in Jacko. He was for ever tearing things to bits. Whenever ladies came near him, his first object was to get hold of their dresses, and bite or pull a hole in them. Being a most ungallant monkey, he never could bear the approach of any except one lady; with the exception of my good mother. Why or wherefore he took

particular fancy to her I don't know, except that he followed the example of all, whether biped or quadruped, who came near her. In this lady's lap, he would quietly repose, when she allowed him to take this liberty; but the little rascal very frequently took unfair advantage of this privilege, by quietly munching up a portion of her dress when not closely watched.

From Buckland's 'Curiosities of Natural History.'

Habitat.—The place where an animal or plant, in a state of nature, lives; e. g. The habitat of the tiger is the jungles of Bengal.

Precipitous.—Hasty.

Ravine.—A narrow gorge, a defile.

Summersault.—A leap heels over head. *Lat. salio*, to leap.

Exemplify.—To illustrate by an example.

Insectivorous.—Insect-devouring.

Propensity.—An inclination; e. g. He had several mischievous propensities of which we could not cure him.

Relentless.—Unpitying.

Cornice.—The plaster moulding which runs round the top of the walls of a room in large houses, just under the ceiling.

Derisive.—Making fun, deriding. *Lat. rideo*, to laugh.

Fracture.—To break. *Lat. frango*, to break.

Vouch.—To answer, to pledge oneself.

Development.—Growth, advance to a higher state of perfection.

Ungallant.—Lacking in politeness to ladies. The accent is on the last syllable. Notice the difference between gallant and gallant.

LESSON XXXIX.

THE PLAGUE.

THIS great calamity broke out in the beginning of May, 1665. The week in which it was first discovered it carried off nine persons, and spread an universal dread through every rank in the metropolis, but in the week

after, the sufferers being reduced to three, the fears of the citizens abated. In the succeeding week, however, the number progressively increased, and in time the deaths were not less than 470 a week. The Royal Family, the nobility, gentry, and principal citizens, now fled with precipitation, and in July, the number increasing to 2010, the civil authorities divided the parishes into districts, and allotted to each district a competent number of officers, under the denomination of examiners, searchers, nurses, and watchmen. They ordered that the existence of the disease, wherever it might penetrate, should be made known to the public by a red cross, one foot in length, painted on the door, with these words, "Lord have mercy upon us!" placed above it. From that moment the house was closed; all egress for the space of one month was inexorably refused; and the wretched inmates were doomed to remain under the same roof, communicating death one to the other; of these many sunk under the horrors of their situation; others, driven by despair, eluded the vigilance or corrupted the fidelity of the watchmen, and by their escape, instead of avoiding, served to disseminate the contagion. Provision was also made for the speedy interment of the dead. In the day time officers were always on the watch to withdraw from public view the bodies of those who expired in the streets; during the night the tinkling of a bell, accompanied with the glare of links, and the awful call of "Bring out your dead," announced the approach of the pest-cart making its round to receive the victims of the last four-and-twenty hours. No coffins were prepared; no funeral service was read; no mourners were permitted to follow the remains of their relatives or friends. The cart proceeded to the nearest cemetery, and shot its burden

into the common grave, a deep and spacious pit, capable of holding some scores of bodies, and dug in the churchyard, or, when the churchyard was full, in the outskirts of the parish. Of the hardened and brutal conduct of the men to whom this duty was committed, men taken from the refuse of society, and lost to all sense of morality or decency, instances are related to which it would be difficult to find a parallel in the annals of human depravity. The sufferings of the patients often threw them into paroxysms of phrenzy. They burst the bonds by which they were confined to their beds; they precipitated themselves from the windows; they ran naked into the streets, and plunged into the river. Men of the strongest minds were lost in amazement when they contemplated this scene of woe and desolation; the weak and credulous became the dupes of their own fears and imagination. Tales the most improbable, and predictions the most terrific, were circulated: numbers assembled at different cemeteries to behold the ghosts of the dead walk round the pits in which their bodies had been deposited; and crowds believed that they saw in the heavens a sword of flame, stretching from Westminster to the Tower. To add to their terrors came the fanatics, who felt themselves inspired to act the part of prophets. One of these, in a state of nudity, walked through the city, bearing on his head a pan of burning coals, and denouncing the judgments of God on its sinful inhabitants; another assuming the character of Jonah, proclaimed aloud as he passed, "Yet forty days, and London shall be destroyed;" and a third might be met, sometimes by day, sometimes by night, advancing with a hurried step, exclaiming with a deep, sepulchral voice, "Oh, the great and dreadful God!" During the

months of July and August the weather was sultry, the heat more and more oppressive. The eastern parishes, which at first had been spared, became the chief seat of the pestilence; and the more substantial citizens, whom it had hitherto respected, suffered in common with their less opulent neighbours. In many places the regulations of the magistrates could no longer be enforced—the night did not suffice for the burial of the dead, who were now borne in coffins to their graves at all hours of the day; and it was inhuman to shut up the houses of the infected poor, whose families must have perished through want, had they not been permitted to go and seek relief. London presented a wide and heart-rending scene of misery and desolation. Rows of houses stood tenantless and open to the winds; others in almost equal numbers exhibited the red cross flaming on the doors. The chief thoroughfares, so lately trodden by the feet of thousands, were overgrown with grass. The few individuals who ventured abroad walked in the middle, and, when they met, declined on opposite sides to avoid the contact of each other. But if the solitude and stillness of the streets impressed the mind with awe, there was something yet more appalling in the sounds which occasionally burst upon the ear. At one moment were heard the roarings of delirium, or the wail of woe, from the infected dwelling; at another, the merry song, or the loud and careless laugh issuing from the wassailers at the tavern. Men became so familiarized with the form that they steeled their feelings against the terrors of death. They waited each for his turn with the resignation of the Christian or the indifference of the Stoic. Some devoted themselves to exercises of piety; others sought relief in the riot of

dissipation, and the recklessness of despair. September came; the heat of the atmosphere began to abate; but, contrary to expectation, the mortality increased (the return for the week ending September the 5th was 8252). Formerly a hope of recovery might be indulged; now infection was the certain harbinger of death, which followed, generally, in the course of three days, often within the space of twenty-four hours. The Privy Council ordered an experiment to be tried, which was grounded on the practice of former times. To dissipate the pestilential miasma, fires of sea-coal, in the proportion of one fire to every twelve houses, were kindled in all the streets, courts, and alleys of London and Westminster. They were kept burning three days and nights, and were at last extinguished by a heavy and continuous fall of rain. The next bill exhibited a considerable reduction in the amount of deaths, and the survivors congratulated each other on the cheering prospect. But the cup was soon dashed from their lips, and in the following week more than *ten thousand* victims, a number hitherto unknown, sank under the augmented violence of the disease. Yet even now, when hope had yielded to despair, their deliverance was at hand. The high winds which usually accompany the autumnal equinox, cooled and purified the air; the fever, though equally contagious, assumed a less malignant form, and its ravages were necessarily more confined, from the diminution of the population, on which it had hitherto fed. The weekly burials successively decreased from thousands to hundreds, and, in the beginning of December, seventy-three parishes were pronounced clear of the disease. The intelligence was hailed with joy by the emigrants, who returned in crowds to take possession of their houses, and to

resume their usual occupations. In February the Court was once more fixed at Whitehall, and the nobility and gentry followed the footsteps of the sovereign. Though more than *one hundred thousand* individuals are said to have perished, yet in a short time the chasm in the population was no longer discernible. The plague continued, indeed, to linger in particular spots, but its terrors were forgotten or despised; and the streets, so recently abandoned by the inhabitants, were again thronged with multitudes in the eager pursuit of profit, or pleasure, or crime.

LINGARD.

Precipitation.—Great haste.

Denomination.—Name. *Lat. nomen*, a name.

Egress.—A passage out. **Ingress**, a passage into.

Inexorably.—Sterply, disregarding all entreaties. *Lat. oro*, to pray.

Elude.—To escape; e. g. The thief eluded the police.

Vigilance.—Watchfulness.

Corrupt.—To bribe; e. g. No one would dare attempt to corrupt an English judge.

Disseminate.—To spread. *Lat. semen*, seed.

Contagion.—A disease spread by touch. *Lat. tango*, to touch.

Links.—Torches used as lights in the streets.

Annals.—History. *Lat. annus*, a year.

Depravity.—Wickedness. *Lat. pravus*, wicked.

Paroxysms.—Violent fits.

Phrenzy.—Madness. Sometimes spelled frenzy.

Credulous.—Disposed to believe on insufficient grounds.

Fanatic.—A person impelled to do outrageous things on religious grounds.

Nudity.—Nakedness. *Lat. nudus*, naked.

Opulent.—Rich. *Lat. opes*, wealth, abundance.

Stoics.—A school of philosophers who sought to render themselves indifferent both to pleasure and pain.

Dissipation.—Drunken excesses.

Harbinger.—Fore-runner, herald.

Miasma.—Infectious particles floating in the air.

Augmented.—Increased. *Lat. augeo*, to increase.

Equinox.—The two occasions in the course of the year when the sun crosses the equator. So called because at these times day and night are of equal duration.

Malignant.—Dangerous. Properly, ill-disposed.

Chasm.—Gap, a deep opening.

LESSON XL.

THE GULF STREAM.

THERE is a river in the ocean. In the severest droughts it never fails, and in the mightiest floods it never overflows. Its banks and its bottom are of cold water, while its current is of warm. The Gulf of Mexico is its fountain, and its mouth is in the Arctic Seas. It is the Gulf Stream. There is in the world no other such majestic flow of waters. Its current is more rapid than the Mississippi or the Amazon, and its volume more than a thousand times greater.

The currents of the ocean are among the most important of its movements. They carry on a constant interchange between the waters of the poles and those of the equator, and thus diminish the extremes of heat and cold in every zone.

The sea has its climates as well as the land. They both change with the latitude; but one varies with the elevation above, the other with the depression below, the sea level. The climates in each are regulated by circulation; but the regulators are, on the one hand, winds; on the other, currents.

The inhabitants of the ocean are as much the creatures of climate as are those of the dry land; for the same Almighty Hand which decked the lily, and cares

for the sparrow, fashioned also the pearl, and feeds the great whale, and adapted each to the physical conditions by which His providence has surrounded it. Whether of the land or the sea, the inhabitants are all His creatures, subjects of His laws, and agents in His economy. The sea therefore, we may safely infer, has its offices and duties to perform; so, we may infer, have its currents; and so, too, its inhabitants: consequently, he who undertakes to study its phenomena must cease to regard it as a waste of waters. He must look upon it as a part of that exquisite machinery by which the harmonies of nature are preserved, and then he will begin to perceive the developments of order, and the evidences of design.

From the Arctic Seas a cold current flows along the coasts of America, to replace the warm water sent through the Gulf Stream, to moderate the cold of western and northern Europe. Perhaps the best indication as to these cold currents may be derived from the fishes of the sea. The whales first pointed out the existence of the Gulf Stream by avoiding its warm waters. Along the coasts of the United States all those delicate animals and marine productions which delight in warmer waters are wanting; thus indicating, by their absence, the cold current from the north now known to exist there. In the genial warmth of the sea about the Bermudas on the one hand, and Africa on the other, we find in great abundance those delicate shell-fish and coral formations which are altogether wanting in the same latitudes along the shores of South Carolina.

No part of the world affords a more difficult or dangerous navigation than the approaches of the northern coasts of the United States in winter. Before the

warmth of the Gulf Stream was known, a voyage at this season from Europe to New England, New York, and even to the Capes of the Delaware or Chesapeake, was many times more trying, difficult, and dangerous than it now is. In making this part of the coast, vessels were frequently met by snow-storms and gales, which mock the seaman's strength, and set at naught his skill. In a little while his bark becomes a mass of ice; with her crew frosted and helpless, she remains obedient only to her helm, and is kept away for the Gulf Stream. After a few hours' run she reaches its edge, and almost at the next bound passes from the midst of winter into a sea, at summer heat. Now the ice disappears from her apparel, and the sailor bathes his stiffened limbs in tepid waters. Feeling himself invigorated and refreshed by the genial warmth about him, he realizes out there at sea the fable of Antæus and his mother Earth. He rises up, and attempts to make his port again, and is again, perhaps, as rudely met and beat back from the north-west; but each time that he is driven off from the contest, he comes forth from this stream, like the ancient son of Neptune, stronger and stronger, until, after many days, his freshened strength prevails, and he at last triumphs, and enters his haven in safety, though in this contest he sometimes falls to rise no more.

The ocean currents are partly the result of the immense evaporation which takes place in the tropical regions, where the sea greatly exceeds the land in extent. The enormous quantity of water there carried off by evaporation disturbs the equilibrium of the seas; but this is restored by a perpetual flow of water from the poles. When these streams of cold water leave the poles, they flow directly towards the equator; but,

before proceeding far, their motion is deflected by the diurnal motion of the earth. "At the poles they have no rotatory motion; and although they gain it more and more in their progress to the equator, which revolves at the rate of a thousand miles an hour, they arrive at the tropics before they have gained the same velocity of rotation with the intertropical ocean. On that account they are left behind, and, consequently, flow in a direction contrary to the diurnal rotation of the earth. Hence the whole surface of the ocean for thirty degrees on each side of the equator flows in a stream or current three thousand miles broad from east to west. The trade winds, which constantly blow in one direction, combine to give this great Equatorial Current a mean velocity of ten or eleven miles in twenty-four hours."

Were it not for the land, such would be the uniform and constant flow of the waters of the ocean. The presence of the land interrupts the regularity of this great westerly movement of the waters, sending them to the north or south, according to its conformation.

The principal branch of the Equatorial Current of the Atlantic takes a north-westerly direction from off Cape St. Roque, in South America. It rushes along the coast of Brazil; and after passing through the Caribbean Sea, and sweeping round the Gulf of Mexico, it flows between Florida and Cuba, and enters the North Atlantic under the name of the Gulf Stream, the most beautiful of all the oceanic currents.

In the Straits of Florida the Gulf Stream is thirty-two miles wide, two thousand two hundred feet deep, and flows at the rate of four miles an hour. Its waters are of the purest ultramarine blue as far as the coasts of Carolina; and so completely are they separated from

the sea through which they flow, that a ship may be seen at times half in the one and half in the other.

As a rule, the hottest water of the Gulf Stream is at or near the surface; and as the deep-sea thermometer is sent down, it shows that these waters, though still much warmer than the water on either side at corresponding depths, gradually become less and less warm until the bottom of the current is reached. There is reason to believe that the warm waters of the Gulf Stream are nowhere permitted, in the oceanic economy, to touch the bottom of the sea. There is everywhere a cushion of cold water between them and the solid parts of the earth's crust. This arrangement is suggestive, and strikingly beautiful. One of the benign offices of the Gulf Stream is to convey heat from the Gulf of Mexico,—where otherwise it would become excessive,—and to dispense it in regions beyond the Atlantic, for the amelioration of the climates of the British Islands, and of all Western Europe. Now, cold water is one of the best non-conductors of heat; but if the warm water of the Gulf Stream were sent across the Atlantic in contact with the solid crust of the earth, comparatively a good conductor of heat, instead of being sent across, as it is, in contact with a non-conducting cushion of cold water to fend it from the bottom, all its heat would be lost in the first part of the way, and the soft climates of both France and England would be as that of Labrador, severe in the extreme, and ice-bound.

It has been estimated that the quantity of heat discharged over the Atlantic from the waters of the Gulf Stream in a winter's day would be sufficient to raise the whole column of atmosphere that rests upon France and the British Islands from the freezing point to summer heat,

Every west wind that blows crosses the stream on its way to Europe, and carries with it a portion of this heat to temper there the northern winds of Europe. It is the influence of this stream that makes Erin the "Emerald Isle of the Sea," and that clothes the shores of Albion in evergreen robes; while, in the same latitude, the coasts of Labrador are fast bound in fetters of ice.

As the Gulf Stream proceeds on its course, it gradually increases in width. It flows along the coast of North America to Newfoundland, where it turns to the east, one branch setting towards the British Islands, and away to the coasts of Norway and the Arctic Ocean. Another branch reaches the Azores, from which it bends round to the south, and, after running along the African coast, it rejoins the great equatorial flow, leaving a vast space of nearly motionless water between the Azores, the Canaries, and Cape de Verd Islands. This great area is the Grassy or Sargasso Sea, covering a space many times larger than the British Islands. It is so thickly matted over with gulf weeds that the speed of vessels passing through it is often much retarded. When the companions of Columbus saw it, they thought it marked the limits of navigation, and became alarmed. To the eye, at a little distance, it seemed substantial enough to walk upon. Patches of the weed are always to be seen floating along the outer edge of the Gulf Stream. Now, if bits of cork or chaff, or any floating substance, be put into a basin, and a circular motion be given to the water, all the light substances will be found crowding together near the centre of the pool, where there is the least motion. Just such a basin is the Atlantic Ocean to the Gulf Stream; and the Sar-

gasso Sea is the centre of the whirl. Columbus first found this weedy sea in his voyage of discovery: there it has remained to this day, moving up and down, and changing its position like the calms of Cancer, according to the seasons, the storms, and the winds. Exact observations as to its limits and their range, extending back for fifty years, assure us that its mean position has not been altered since that time. MAURY.

Physical.—Natural. *Gr. phusis*, nature.

Phenomena.—Appearances, manifestations.

Harmony.—Agreement, concord.

Design.—Intentional adaptation of means to ends.

Marine.—Relating to the sea. *Lat. mare*, the sea.

Antæus.—According to ancient fable, a giant, the son of Neptune and the Earth. He was invincible so long as he was in contact with his mother Earth.

Equilibrium.—Balance; e. g. He lost his equilibrium.

Rotatory.—Turning round like a wheel. *Lat. rota*, a wheel.

Diurnal.—Daily. *Lat. dies*, a day.

Economy.—Arrangements. Properly, the arrangements of a house.

Benign.—Kind, beneficial. *Lat. benignus*, kind.

Amelioration.—Improvement, bettering. *Lat. melior*, better.

Calms of Cancer.—Calms that prevail on or near to the tropic of Cancer.

LESSON XII.

THE SONG OF THE WESTERN MEN.

A good sword, and a trusty hand,
 A merry heart and true;
 King James's men shall understand
 What Cornish lads can do.
 And have they fixed the where and when?
 And shall Trelawney die?
 Then twenty thousand Cornish men
 Will know the reason why!

What, will they scorn Tre, Pol, and Pen,
 And shall Trelawney die ?
 Then twenty thousand under ground
 Will know the reason why !

Out spake the Captain brave and bold—
 A gallant wight was he—
 “ Though London’s Tower were Michael’s hold
 We’ll set Trelawney free.
 We’ll cross the Tamar band to hand,
 The Exe shall be no stay—
 Go, side by side, from strand to strand,
 And who shall bid us nay ?
 What, will they scorn Tre, Pol, and Pen,
 And shall Trelawney die ?
 Then twenty thousand Cornish men
 Will know the reason why !

“ And when we come to London wall
 We’ll shout with it in view,—
 ‘ Come forth, come forth, ye cowards all,
 We’re better men than you ; ’
 Trelawney is in keep and hold,
 Trelawney e’en may die !
 But twenty thousand Cornish men
 Will know the reason why !
 What, will they scorn Tre, Pol, and Pen,
 And shall Trelawney die ?
 Then twenty thousand under ground
 Will know the reason why ! ”

REV. R. S. HAWKER.

King James.—James II.

Trelawney.—One of the seven Bishops who were imprisoned by James II. He was of an old Cornish family.

Tre, Pol, and Pen.—Common prefixes to Cornish surnames. Compare ‘Tregarthen,’ ‘Polwhele,’ ‘Pengelly.’ The proverb says:—

“ By Tre, Pol, and Pen
 You may know Cornishmen.”

Under ground.—Most of the Cornishmen were miners.

Wight.—Hero. Compare 'Wallace Wight.'

Michael's hold.—The stronghold on the top of St. Michael's Mount.

Keep and hold.—Prison. Compare the "keep" of a castle, and "strong-hold."

LESSON XLII.

DISCIPLINE.

PERHAPS there have never been occasions when the habit of instantaneous obedience to the voice of duty has produced more touching instances of forbearance and unselfishness than in the confusion and despair of a shipwreck.

In British ships of war, unshrinking obedience, heeding nothing but the one matter in hand, is the rule. "As a landsman," says Colonel Fisher, an engineer officer, who was on board the 'Plover' gun-boat in the hottest fire on the Peiho river, "I was much struck with the coolness with which the navigation of the vessel was attended to; the man in the chains cries the soundings, the master gives his orders to the man at the helm and the engineers below; the helmsman has no eyes or ears but for the master's directions and signals. . . . All seem intent on what is their duty at the time being, and utterly unmindful of the struggle raging around them." And this when not only were they being shot down every moment, but when each comparatively harmless ball rocked the gun-boat, sent splinters flying, or brought the yards down upon their heads. Where such conduct is regarded as a mere matter of course, from the grey-headed admiral down to the cadet and the cabin-boy, no wonder that multitudes of deeds have been done, glorious

because they placed duty far above self, and proved that Nelson's signal is indeed true to the strongest instinct of the British sailor.

The only difficulty is to choose among the instances of patient obedience on record; and how many more are there, unknown to all but to Him who treasures up the record until the day when "the sea shall give up her dead!" Let us cast a glance at the '*Atalante*,' bewildered in a fog upon the coast of Nova Scotia, and deceived by the signal guns of another ship in distress, till she struck upon the formidable reefs known by the name of the Sister Rocks, off Sambro Island. The wreck was complete and hopeless, and a number of men scrambled at once into the pinnace; but the captain, seeing that she could never float so loaded, ordered twenty of them out, and was implicitly obeyed, so entirely without a murmur, that as the men hung clinging to the weather gunwale of the ship, they drowned the crashing of the falling masts with their cheers.

As soon as the pinnace was lightened, she floated off, but immediately turned bottom upwards. Still the crew never lost their self-possession for one moment, but succeeded in righting her, and resuming their places, without the loss of a man. They then waited beyond the dash of the breakers on the reef, for Captain Hickey and their companions, who were still clinging to the remains of the ship. There were two other boats, but too small to hold the whole number, and an attempt was made to construct a raft, but the beating of the waves rendered this impossible, so that the men already in the pinnace were directed to lie down in the bottom, and pack themselves like herrings in a barrel, while the lesser boats returned through the surf to pick

off the rest—a most difficult matter, and indeed some had to be dragged off on ropes, and others to swim, but not one was lost. The captain was of course the last man to quit the wreck, though several of the officers were most unwilling to precede him even for a moment, and by the time he reached the boat, the last timber had almost entirely disappeared, amid the loud cheers of the brave-hearted crew.

Nothing was saved but the admiral's despatches, which the captain had secured at the first moment, and the chronometer. This last was the special charge of the captain's clerk, who had been directed always to hold it in his hand when the guns were fired, or the ship underwent any shock, so as to prevent the works from being injured. On the first alarm he had caught up the chronometer and run on deck, but being unable to swim, was forced to cling to the mizen-mast. When the ship fell over, and the masts became nearly horizontal, he crawled out to the mizen-top, and sat there until the spar gave way and plunged him into the waves, whence he was dragged into one of the boats, half-drowned, but grasping tight his precious trust. A poor merry negro, who held fast to his fiddle to the last moment, as he clung to the main-chains, was obliged to let his instrument go, amid the laughter and fun of his messmates, who seem to have found food for merriment in every occurrence. No one had a full suit of clothes, but an old quartermaster, named Samuel Shanks, who had comported himself as composedly as if shipwrecks befell him every day, and did not even take off his hat, except for a last cheer to the 'Atalante' as she sunk. He recollected that he had a small compass seal hanging to his watch, and this being handed to the captain in his gig, and placed on the top of the

chronometer, it proved steady enough to steer by, as the three boats crept carefully along in the dense fog. They landed, after a few hours, on the coast, about twenty miles from Halifax, at a fishing station, where they were warmed and fed.

Thence the captain took the most exhausted and least clothed of the party in the boats to Halifax, leaving the others to march through the half cleared country. Before night the whole ship's company assembled, without one man missing, in as complete order as if nothing had happened.

Here perfect discipline had proved the means of safety, and hope had never failed for a moment; but we have still fresh in our memories an occasion where such forbearing obedience led to a willing self-sacrifice, when safety might have been possible to the strong at the expense of certain destruction to the weak.

The 'Birkenhead,' a war steamer used as a transport, was on her way to Algoa Bay with about six hundred and thirty persons on board, one hundred and thirty-two being her own crew, the rest being detachments from the 12th, 74th, and 91st regiments, and the wives and children of the soldiers. In the dead of the night between the 25th and 28th of February, the vessel struck on a reef of sunken rocks on the African coast, and, from the rapidity with which she was moving, and the violence of the waves, became rapidly a hopeless wreck. On the shock the whole of the men and officers hurried on deck, and the commanding officer, Lieutenant-Colonel Seton, calling the other officers about him, impressed on them the necessity of preserving order and silence among the men, and placed them at the disposal of the commander of the vessel.

Sixty were placed at the pumps, others to disengage

the boats, and others to throw the poor horses overboard, so as to lighten the ship, while the rest were sent to the poop to ease the fore part of the ship. Every one did as directed, and not a murmur or cry was heard. They were steady as if on parade, as ready as though embarking in a British harbour.

The largest boat was unhappily too much encumbered to be got at quickly enough, but the cutter was filled with the women and children, and pushed off, as did two other small boats. The other two large ones were, one capsized, the other stove in by the fall of the funnel, which took place immediately after the cutter was clear of the ship, only twelve or fifteen minutes after the ship had struck. At the same time the whole vessel broke in two parts, crosswise, and the stern part began to sink and fill with water. The commander called out, "All those that can swim jump overboard and swim for the boats."

But Colonel Seton, and the officers with him, besought their men to forbear, showing them that if they did so, the boats with the women must be swamped. And they stood still. Not more than three made the attempt. Officers and men alike waited to face almost certain death rather than endanger the women and children. Young soldiers, mostly but a short time in the service, were as patiently resolute as their elders. In a few moments the whole of these brave men were washed into the sea, some sinking, some swimming, some clinging to spars. The boats picked up as many as was possible without overloading them, and then made for the shore, which was only two miles off, hoping to land these and return for more, but the surf ran so high that landing was impossible, and after seeking till daylight for a safe landing-place, they were at last picked

up by a schooner, which then made for the wreck, where thirty or forty were still clinging to the masts in a dreadful state of exhaustion.

A few, both of men and horses, had succeeded in swimming to the shore, but some were devoured by the sharks on the way, and out of the whole number in the ship only one hundred and ninety-two were saved. But those who were lost, both soldiers and sailors, have left behind them a memory of calm, self-denying courage as heroic as ever was shown on battle-field.

Author of the 'Heir of Redclyffe.'

Cadet.—A young officer, a midshipman. French cadet, the youngest son.

Formidable.—To be dreaded. *Lat. formido*, fear.

Implicitly obeyed.—Strictly obeyed, obeyed to the letter.

Transport.—A vessel employed for the conveyance of troops.

Detachment.—A portion of a regiment detached from the rest.

LESSON XLIII.

THE BATTLE OF THE BOYNE.

JAMES, on his retirement to France, having warmly interested Louis XIV. in his cause, lost no time in collecting an army and landing in Ireland, which still owned his authority, from whence he hoped, being reinforced by the Catholics, to make a descent on England to recover his lost crown; but he soon found the task more difficult than he contemplated. The siege of Londonderry being raised by General Kirk, James was not long afterwards met by King William in person, on the banks of the Boyne, where on the 1st July, 1690, was fought the famous battle which extinguished the hopes of the craven-hearted adven-

turer, who was again obliged to seek ignominious security in France. The hostile armies had been drawing gradually nearer to each other until on the 29th of June, when James crossed the river Boyne, and took up his position on the right bank. William was so near at hand, that on the 30th he too reached the river at the same point, and prepared for battle. The armies were very large; William's consisted of 36,000 English, French, Dutch, and Danes; James's of 27,000 French and Irish, independent of a body of troops who held Drogheda for him on his right, so as to command the road to Dublin. The commanders included brave and eminent men on both sides; William had with him the Duke of Schomberg and his son, Count Schomberg, Generals Ginkel, Douglas, and Kirke; whilst for James fought the Dukes of Tyrconnel and Berwick, Generals Hamilton and Saarsfield, the Count Lauzun, and other able French officers; but then there was William, a host in himself, whilst as far as James's military abilities or courage were concerned his troops would have been as well, if not better, without him than with him. An accident, however, had nearly wrought an overwhelming counterbalance in James's favour; as William, who had just risen from breakfast, was riding up and down with his staff to examine the enemy's position, and judge how he might best attack them, two field-pieces were brought to bear upon his party, and fired with such precision, that a man and two horses were killed by the first shot, very near to William's side. A second shot followed, which grazed the bank of the river, then passed right across the king's shoulder, and tore away some little flesh. Lord Coningsby, riding up immediately, clapped his handkerchief to the wound, but William said he heeded it

not, that the ball should have come nearer to do him harm; and then, after the wound was dressed, proceeded with his employment, continuing on horseback nearly the whole of the day. But James's soldiers, seeing the confusion produced among the party fired on, jumped at once to the conclusion that William was killed, and sent off expresses to that effect to Dublin, to Paris, and to all the other capitals of Europe. Towards night, William called his officers together, not exactly to ask their opinion, but rather to tell them that he had determined he would pass the river on the morrow. Immediately all preparations were made; the men were to wear in their hats green boughs or sprigs, to distinguish them from the French and Irish, who wore pieces of white paper as cockades. At midnight William rode amidst the light of torches through every part of the camp; when day broke, in all the splendour of one of the finest of summer mornings, the troops were roused, and by the time the sun was up, the leading division was on the march. Ten thousand horse and foot presently moved towards the fords below Slane, and five thousand of James's army advanced to dispute their passage. The contest was sharp, but short and decisive; James's officer, Sir Neale O'Neill, fell dead at the head of his regiment at the first charge, and his opponent, General Douglas, was soon firmly posted on the opposite bank; and now there opened a still more portentous attack from the centre of William's position. Amidst a general movement of Enniskillen infantry, regiments of French Huguenots, and of large bodies of cavalry, a dense mass of Dutch blue guards were in particular seen to advance, their drums beating a march, till they reached the water's edge, when they dashed eight or ten abreast

into the river, and crossed towards the centre of James's army, which was partly covered by ditches and breast-works, and partly hidden by intervening heights. A tremendous fire was opened upon the guards as they reached the middle of the river, but they moved on, reached the opposite bank, and dislodged their enemies. The Huguenots and Enniskilleners crossed a little lower down, whilst the cavalry made way between them and the Dutch guards, but the attacks upon them were so fierce that the Huguenots were broken, and lost their commander, and some of the horse driven back. Schomberg here started forward, passed the river, placed himself at the head of the Huguenots, and, pointing to the French Catholics in James's army, cried out in words that must have had a most stirring effect upon those to whom they were addressed, "Come, gentlemen, see your persecutors!" but even as he spoke a ball passed through his neck, and the veteran was presently dead. William now charged in person with the Enniskillen regiment, who now rallied, and redeemed themselves from the disgrace of their momentary retreat; William, with his sword drawn, though hardly able to carry it through pain and stiffness of his wound the day before, directed them and the Dutch guards right against the centre of James's army, where, however, no James now was; that prudent monarch was already thinking of the road to Dublin, and endeavouring to place himself in a convenient nearness to it; but his troops fought better for their master than he did for himself, and though they were driven back by the overwhelming impetus of William's attack, they rallied, and even repulsed their enemies for a time so vigorously, that the king was in great personal danger. But from all quarters the charges grew more

and more frequent and severe; again and again the Irish and French were compelled to retreat, till, in a word, it was evident the battle was lost, when there was a rapid dispersion of the mighty force that promised in the morning to restore James to his three kingdoms. The French alone retreated in good order; James's precautions for escape were perfectly successful; he went off under the protection of General Saarsfield's regiment of cavalry, and swept along as fast as fear could carry him to Dublin. Meanly enough he endeavoured to throw the blame of defeat on the brave Irish; as he reached the castle of Dublin, and Lady Tyrconnel advanced to meet him, he said to her, "Your countrymen, the Irish, madam, can run very quick;" the stinging answer was, "Your Majesty excels them in this as in everything else, for you have won the race." This was unpleasant, but James was not to be deterred by it from continuing his flight at so rapid a pace that he rode to Waterford by the next night, a distance of more than a hundred miles; here he had shipping ready, and he at once embarked for France. As he ascended the side of the vessel the wind blew off his hat; General O'Farrel, to prevent his catching cold, put his own hat on the king's head, who seems to have been touched by the single act of kindness so far as to try to say something noticeable on the occasion, so he observed that "If, through the fault of the Irish he had lost a crown, he had gained a hat from them in its place."

' Old England.'

Craven-hearted.—Cowardly.

Ignominious.—Disgraceful. *Lat. nomen, a name.*

Portentous.—Threatening. Compare portent, a sign of some coming danger.

Impetus.—On-rush, force; e.g. We could not resist the impetus of their attack.

LESSON XLIV.

THE RELIEF OF LONDONDERRY.

It was the 30th of July. The sun had just set; the evening sermon in the cathedral was over; and the heartbroken congregation had separated, when the sentinels on the tower saw the sails of three vessels coming up the Foyle. Soon there was a stir in the Irish camp. The besiegers were on the alert for miles along both shores. The ships were in extreme peril, for the river was low; and the only navigable channel ran very near to the left bank, where the head-quarters of the enemy had been fixed, and where the batteries were most numerous. Leake performed his duty with a skill and spirit worthy of his noble profession, exposed his frigate to cover the merchantmen, and used his guns with great effect. At length the little squadron came to the place of peril. Then the 'Mountjoy' took the lead, and went right at the boom. The huge barricade cracked and gave way; but the shock was such that the 'Mountjoy' rebounded, and stuck in the mud. A yell of triumph rose from the banks: the Irish rushed to their boats, and were preparing to board; but the 'Dartmouth' poured on them a well-directed broadside, which threw them into disorder. Just then the 'Phoenix' dashed at the breach which the 'Mountjoy' had made, and was in a moment within the fence. Meantime the tide was rising fast. The 'Mountjoy' began to move, and soon passed safe through the broken stakes and floating spars. But her brave master (Micaiah Browning) was no more. A shot from one of the batteries had struck him; and he died by the most enviable of all deaths, in sight of

the city which was his birth-place, which was his home, and which had just been saved by his courage and self-devotion from the most frightful form of destruction. The night had closed in before the conflict at the boom began; but the flash of the guns was seen and the noise heard by the lean and ghastly multitude which covered the walls of the city. When the 'Mount-joy' grounded, and when the shout of triumph rose from the Irish on both sides of the river, the hearts of the besieged died within them. One who endured the unutterable anguish at that moment has told us that they looked fearfully livid in each other's eyes. Even after the barricade had been passed, there was a terrible half hour of suspense. It was ten o'clock before the ships arrived at the quay. The whole population was there to welcome them. A screen made of casks filled with earth was hastily thrown up to protect the landing-place from the batteries on the other side of the river; and then the work of unloading began. First were rolled on shore barrels containing six thousand bushels of meal. Then came great cheeses, casks of beef, fitches of bacon, kegs of butter, sacks of peas and biscuits, ankers of brandy. Not many hours before, half a pound of tallow, and three-quarters of a pound of salted hide had been weighed out with niggardly care to every fighting man. The ration which each now received was three pounds of flour, two pounds of beef, and a pint of peas. It is easy to imagine with what tears grace was said over the suppers of that evening. There was little sleep on either side of the wall. The bonfires shone bright along the whole circuit of the ramparts. The Irish guns continued to roar all night; and all night the bells of the rescued city made answer to the Irish guns with a

peal of joyous defiance. Through the whole of the 31st of July the batteries of the enemy continued to play. But, soon after the sun had again gone down, flames were seen arising from the camp; and, when the 1st of August dawned, a line of smoking ruins marked the site lately occupied by the huts of the besiegers; and the citizens saw far off the long column of pikes and standards retreating up the left bank of the Foyle towards the Strabane.

Lord Macaulay's 'History of England.'

Boom.—A number of spars bound together, extended across the mouth of a harbour, to prevent ships from entering. *Ger.* baum, a tree.

Anker.—A small cask, containing ten gallons.

LESSON XLV.

THE COUNTESS OF NITHISDALE.

IN the first Scottish rising in favour of the dethroned Stuarts Lord Nithisdale was deeply concerned. He was brought to the Tower, and sentenced to the block. His wife, Winifred Herbert, travelled from her country seat in the North to London, in the depth of an unusually severe winter, in order to save him. The roads were stopped; no vehicle could proceed. Attended by her maid and a groom, she rode on horseback through the Yorkshire wolds and the midland fens, with her steed sometimes struggling to the girth in the snow, and sometimes all but buried in the drift. On her arrival in London this brave and devoted woman planned her husband's escape when she found that his pardon was no longer to be hoped for.

"A prison in a prison was so strong that no one

dreamt of an escape, and the servants paid but scant attention to the prison rules. The keepers' wives and children came and went about the place at will; a mob of them were standing in the Council Chamber when she passed. Here lay a hint, which she imparted to her maid and to her lord. She meant to dress him up in cap and skirt, and pass him as a woman through the sentries with their loaded guns and bayonets fixed. The earl could only smile. Where could he find the female skirt and cap if he were willing to adopt so flimsy a disguise? . . . The countess had been making friends for him; one friend was Miss Hilton, whom she knew through Evans (her maid), a devoted girl who would not fail them in their need; a second was a Mrs. Mills, with whom she lodged in Drury Lane. Hilton was tall and slim, while Mills was tall and stout. A riding-hood for Mills would fit the earl, and could be worn by him at dusk without much fear. The earl must pass for Mills. Of course it was not easy. Mills's hair was red, the earl's dark; then he must wear a wig. Her eyebrows were but faint, the earl's were thick and black; he must paint them out of sight. Her face was round and fair, his was long and dark, with manly beard; then he must rouge his skin and shave his beard. Lord Nithisdale would not listen to such stuff. A soldier, how could he put on such gear? With sword in hand he would not scruple to attack the guards, but how could he confront them in a gown and wig? She coaxed him to be good, and let her have her way for once. He would not promise, but he let her leave in his room the head-dress and the pots of paste and paint.

"They were to try a scheme of baffling, personation, and disguise. Miss Hilton was to play the part of

Mrs. Catherine, Mrs Mills to play the part of Mrs. Betley. They would drive with Evans and herself at dusk of evening to the Tower. Evans would wait near the door; the other woman would go in and see the earl. Miss Hilton, who was slim, should wear two riding-hoods, her own and that of Mrs. Mills. She would go in as Mrs. Catherine, drop her extra clothes, and leave as quickly as she could. Mrs. Mills, who was rotund and full, should then go in as Mrs. Betley, wearing a riding-hood to fit the earl. Hilton was to step in light and jaunty; Mills was to mope in; drowned in tears, and with a kerchief at her face. Hilton was to slip away unnamed, but Mills, having shrunk in size and changed her dress for that in which Hilton entered, was to leave as Mrs. Catherine. Everything would turn on Lady Nithisdale being able to confuse the guard and sentries as to who had passed both in and out. . . They found some girls and women in the Council Chamber. The presence of these women filled the room with noise, and helped to turn the sentries from their careful watch. Lady Nithisdale took in Hilton first as Mrs. Catherine. Miss Hilton shed the extra clothing to be worn by Mills, and retired accompanied to the staircase by her ladyship, who said to her aloud on parting, 'Send my maid to me; I must be dressed at once, or I shall be too late with my petition.' Mrs. Mills came up the stairs, a tall, stout woman, who held her kerchief to her face, and seemed to be half-dead with grief. She went out with a lighter step and head held up, attended by the countess, who was saying, 'Go, my dear Mrs. Catherine, go in all haste, and send my maid; she forgets I am to present my petition to-night.' The woman sobbed with her, and one of the sentries chatting with these women opened the door for Mills to leave. Now came the

moment of her life—the moment of two lives in one. . . . It was nearly dark, and keepers might come in with lights; a candle would unveil them; they must act at once. The countess, therefore, shook down all her petticoats save one, and tied them round her lord; too dark to shave, he thrust his chin in a muffer; and, his cheeks being painted, his ringlets twisted round his brow, his petticoats and hood put on, she raised the latch and led him by the hand as she had done the women, but with deeper misery of voice, exclaiming, ‘For the love of God, dear Mrs. Betley, run and bring her with you; if ever you made despatch in your life do it at present.’ The sentries let them pass, and one of them ran and opened the chamber door. The countess slipped behind her husband in the passage, so that no one looking after them should see his manly stride. ‘Make haste, make haste, and bring my maid!’ she went on crying in piteous tone, until they had passed the outer door and sentries. . . . The countess, fearing to be absent for a moment, lest some keeper, entering the room, should find her husband gone, and raise cry before he passed the outer gates, returned in feigned distress, and passing to his chamber, shut the door, and strode about the room, made a noise, and spoke to him, and answered for him in a manly voice. When she thought he must be clear, she raised the latch, and standing on the doorway that all could hear, bade her husband an affectionate good-night, saying that something must have happened to Evans; that she saw no remedy but to go herself; that if the Tower were open, she would come again that night, when she had done; anyhow, she would be with him early in the morning, when she hoped to bring good news. While she was speaking to the empty room, she drew the latch string

through the hole, and pulled the door to with a snap. 'Do not disturb my lord,' she said, in passing, to his servant. 'Let the candles wait until he calls for them. My lord is at his prayers.' . . . In the dress of a servant to the Venetian agent, Nithisdale left the country, and the Catholic heroine took up her abode in Rome." *'Her Majesty's Tower,' by W. H. Dixon.*

Wolds.—Hills. A common name for hills in Yorkshire and Lincolnshire.

Personation.—The assumption of the character of another person.

Rotund.—Round.

Jaunty.—"Free and easy."

LESSON XLVI.

FLORA MACDONALD.

THE pursuers of the prince having tracked him to the island of South Uist, where he was hiding in a miserable hut, almost without food, and his clothes in rags, further concealment or escape seemed alike impossible, and so they must have proved but for Miss Flora Macdonald; a name, says Dr. Johnson, which will for ever live in history. This young lady was then on a visit to Clanranald's family, and was step-daughter of a captain in the hostile militia, which occupied the island. Being appealed to in Charles's behalf, she nobly undertook to save him at all hazards to herself. She obtained from her step-father a passport to proceed to Skye, for herself, a man servant, and a maid, who was termed Betty Burke, the part of Betty to be played by the chevalier. When Lady Clanranald and Flora sought him out, bringing with them a female dress, they found him alone in a little hut upon the

shore, employed in roasting the heart of a sheep upon a wooden spit. They could not forbear from shedding tears at his desolate situation, but Charles observed with a smile, that it would be well, perhaps, for all kings if they had to pass through such an ordeal as he was now enduring. On the same evening he took advantage of the passport, embarking in his new attire with Flora and a faithful Highlander, Neil Mac Eachan, who acted as their servant. The dawn of the next day found them far at sea in their open boat, without any land in view. Soon, however, the dark mountains of Skye rose on the horizon. Approaching the coast at Waternish, they were received with a volley of musketry from the soldiers stationed there, but none of the balls took effect, and the rowers vigorously plying their oars, bore them away from that scene of danger, and enabled them to disembark on another point. Charles was now in the country of Sir Alexander Macdonald, at first a waverer in the contest, but of late a decided foe. When the prudent chief saw the Jacobite cause decline, he had been induced to levy his clan against it, and was now on the main-land in attendance on the Duke of Cumberland. Yet it was of his wife, Lady Margaret, a daughter of the Earl of Eglington, that Flora determined to implore assistance, having no other resource, and knowing from herself the courageous pity of a female heart. Lady Margaret received the news with pain and surprise, but did not disappoint Flora's firm reliance; her own house was filled with militia officers, but she entrusted Charles, with earnest injunctions for his safety, to the charge of Macdonald of Kingsbury, the kinsman and factor of her husband. As they walked to Kingsbury's house, Charles still in woman's disguise, they had several

streams to pass, and the prince held up his petticoats so high as to excite the surprise and laughter of some country people on the road. Being admonished by his attendants, he promised to take better care for the future, and, accordingly, in passing the next stream, allowed the skirts to hang down and float upon the water. "Your enemies," said Kingsbury, "call you a pretender, but if you be, I can tell you you are the worst of your trade I ever saw!" Next day, at Portree Charles took leave of the noble-minded Flora with warm expressions of his gratitude, and passed over to the isle of Rasay under the less inconvenient disguise of a male servant, under the name of Lewis Caw. His preservers soon afterwards paid the penalty of their compassion, both Kingsbury and Flora Macdonald being arrested and conveyed in custody, the former to Edinburgh, the latter to London. The conduct of Lady Margaret, likewise, was much inveighed against at court; but once, when it provoked censure from the Princess of Wales: "And would not you, madam," asked Frederick (the Prince of Wales, father of George III.) with a generous spirit, "would not you, in like circumstances, have done the same. I hope—I am sure you would." It was at the intercession, it is said, of his royal highness that Flora was released from prison after twelve months' confinement. A collection was made for her among the Jacobite ladies in London to the amount of nearly 1500*l*. She then married Kingsbury's son, and many years afterwards went with him to North America; but both returned during the civil war, and died in their native Isle of Skye.

Lord Mahon's History.

Chevalier.—The name commonly given to Charles Edward.

Ordeal.—A trying occasion.

Factor.—In Scotland the steward of an estate.

LESSON XLVII.

BESET IN THE ICE.

AUTUMN was passing away, the days were getting shorter, and in our immediate neighbourhood no movement in the ice was perceptible, save that we had drifted continuously towards the north-east; sometimes, though rarely, a fissure in the ice grew to the proportions of an "ice hole," only, however, to be quickly frozen over and present a surface for our skates. There lay the frozen sea, the picture of dull, hopeless monotony; shelter there was none. Our floe, though it seemed to combine the conveniences of a winter harbour, could not stand the test of closer observation, the illusion of such a notion must be short-lived. But many signs now indicated the insecurity of our position. Fields of ice in our neighbourhood cracked and split asunder, and piled up masses floated round us, silent preachers, as it were, of the destruction which ice pressure could produce.

A change, however, was soon to come over the scene. On the evening of October 12th we imagined that the cabin lamp oscillated, and consequently that our floe was in motion. On the same night we were conscious of a violent movement in the ice. A dreadful day was the 13th of October,—a Sunday; it was decisive of the fate of the expedition. In the morning of that day, as we sat at breakfast, our floe burst across immediately under the ship. Rushing on deck, we discovered that we were surrounded and squeezed by the ice; the after part of the ship was already nipped and pressed, and the rudder, which was the first to encounter its assault, shook and groaned; but as its great weight did not admit of its being shipped, we were content to lash it firmly. We next sprang on the ice, the tossing, tremu-

lous motion of which literally filled the air with noises as of shrieks and howls, and we quickly got on board all the materials which were lying on the floe, and bound the fissures of the ice hastily together by ice-anchors and cables, filling them up with snow, in the hope that frost would complete our work, though we felt that a single heave might shatter our labours. But, just as in the risings of a people, the wave of revolt spreads on every side, so now the ice uprose against us. Mountains threateningly reared themselves from out the level fields of ice, and the low groan which issued from its depths grew into a deep rumbling sound, and at last rose into a furious howl as of myriads of voices. Noise and confusion reigned supreme, and step by step destruction drew nigh in the crashing together of the fields of ice. Our floe was now crushed, and its blocks piled up into mountains, drove hither and thither. Here, they towered fathoms high above the ship, and forced the protecting timbers of massive oak, as if in mockery of their purpose, against the hull of the vessel; there masses of ice fell down as into an abyss under the ship, to be engulfed in the rushing waters, so that the quantity of ice beneath the ship was continually increased, and at last it began to raise her quite above the level of the sea. About 11.30 in the forenoon, according to our usual custom, a portion of the Bible was read on deck, and this day, quite accidentally, the portion read was the history of Joshua; but if in his day the sun stood still, it was more than the ice now showed any inclination to do.

The terrible commotion going on around us prevented us from seeing anything distinctly. The sky too was overcast, the sun's place could only be conjectured. In all haste we began to make ready to abandon

the ship, in case it should be crushed, a fate which seemed inevitable, if she were not sufficiently raised through the pressure of the ice. About 12.30 the pressure reached a frightful height, every part of the vessel strained and groaned; the crew, who had been sent down to dine, rushed on deck. The 'Tegetthoff' had heeled over on her side, and huge piles of ice threatened to precipitate themselves upon her. But the pressure abated, and the ship righted herself; and about one o'clock, when the danger was in some degree over, the crew went below to dine. But again a strain was felt through the vessel, everything which hung freely began to oscillate violently, and all hastened on deck, some with the unfinished dinner in their hands, others stuffing it into their pockets. Calmly and silently, amid the loud sounds emitted by the ice in its violent movement, the officers assumed and carried out the special duty which had been assigned to each in the contemplated abandonment of the ship. Lieutenant Weyprecht got ready the boats, Brosch and Orel cleared out the supply of provision to be taken in them, Kepes, our doctor, had an eye to his drugs, the Tyrolese opened the magazine, and got out the rifles and ammunition—I myself attended to the sledges, the tents, and the sacks for sleeping in, and distributed to the crew their fur coats. We now stood ready to start, each with a bundle—whither, no one pretended to know! For not a fragment of the ice around us had remained whole; nowhere could the eye discover a still perfect and uninjured floe, to serve as a place of refuge, as a vast floe had before been to the crew of the 'Hansa.' Nay, not a block, not a table of ice was at rest, all shapes and sizes of it were in active motion, some rearing up, some turning and twisting, none on the level. A

sledge would at once have been swallowed up, and in this very circumstance lay the horror of our situation. For, if the ship should sink, whither should we go, even with the smallest stock of provisions?—amid this confusion, how reach the land thirty miles distant without the most indispensable necessities?

The dogs, too, demanded our attention. They had sprung on chests and stared on the waves of ice, as they rose and roared. Every trace of his fox-nature had disappeared from "Sumbu." His look, at other times so full of cunning, had assumed an expression of timidity and humility, and, unbidden, he offered his paw to all passers by. The Lapland dog, little Pekel, sprang upon me, licked my hand, and looked out on the ice as if he meant to ask me what all this meant. The large Newfoundlanders stood motionless, like scared chamois, on the piles of chests.

About 4 P.M. the pressure moderated; an hour afterwards there was a calm, and with more composure we could now survey our position. The carpenter shovelled away the snow from the deck in order to inspect the seams. They were still uninjured. The knees and cross-beams still held, and no very great quantity of water was found in the hold. This result we owed solely to the strength of our ship and to her fine lines, which enabled her to rise when nipped and pressed, while her interior, so well laden as to become a solid body, increased her powers of resistance. Everything was again restored to its place, so that it was possible to go up and down the cabin stairs without great difficulty, and in the evening the water in the hold, which had risen 13 inches, was pumped out to its normal depth of 6 inches. We went down into the cabin to rest, but, though thankful and joyful for the

issue, our minds were clouded with care and anxiety. Henceforth we regarded every noise with suspicious apprehensions, like a population which lives within an area of earthquakes. The long winter nights and their fearful cold were before us; we were drifting into unknown regions, utterly uncertain of the end. When night came, we fell asleep with our clothes on, though our sleep was disturbed every now and then by the onsets of the ice, recurring less frequently and in diminished force; but daily—and for *one hundred and thirty days*—we went through the same experiences in greater or lesser measure, almost always in sunless darkness. It was, however, a fortunate circumstance for us that we encountered the first assaults of the ice at a time when we were still able to see; for instead of the calm preparations we were able to make, hurry and confusion would have been inevitable had these assaults surprised us amid the Polar darkness.

Early in the morning of October 14th we all met at breakfast, but on every face there lay an expression of grave thoughtfulness, for each of us was contemplating the long perspective of those dreary nights, in which we should drift without a goal in the awful wastes of the Frozen Sea. The speedy restoration of our floe was now our most earnest desire. It was only severe frost and heavy falls of snow—as we vainly imagined—which could cement the chaos of broken fragments around us and form from them a new floe; for as yet we had not learnt by experience, that severe cold in itself, unaccompanied with wind, is sufficient to break up the fields of ice, from the contraction which it causes. We deluded ourselves with another consolation—we imagined that the ice-pressures would cease as soon as we passed the eastern extremity of Novaya

Zemlya, and that in the Sea of Kara we should drift without encountering the pressures, due as we conceived, to our nearness to land. But vain also was this hope, for we were drifting not into the Sea of Kara, but towards the north-east. We should have found, even in that sea, that pressures from the ice may occur within the Frozen Ocean, however, as well as at its coasts. The masses of ice which caused our disasters probably came from sea.

October 30th.—At half-past three o'clock in the morning there was a dreadful straining and creaking in the ship: at once we sprang out of our berths, and stood on deck with our fur garments on and with our bags as before. New fissures had appeared which rapidly enlarge themselves; the two boats and the coal-house are now surrounded by up-forced masses of ice and separated from us. Then a pause! There is, however, no real repose, and the least sound on deck, the falling of anything heavy—at other times quite unnoticed—alarms us into the expectation of new onsets. At noon, as we sat at dinner, there was renewed and excessive straining in the ship, and even in the cabin we heard such a rushing sound in the ice without, that it seemed as if the whole frozen sea would the next moment boil and rise in vapour. During all the afternoon the noise continues, and all the fissures send forth dense vapours, like hot springs. During the day no quiet for reading or working, and every night almost our sleep is disturbed by a horrible awaking within a great creaking, groaning coffin. Men can accustom themselves to almost anything; but to these daily recurring shocks, and the constantly renewed question as to the end and issue of it all, we cannot grow accustomed.

There is, however, such an intolerable monotony in

my diary, that, to spare my readers, I thus, in a few words, resuming its contents, describe our situation :—
 “One of us, to-day, remarked very truly, that he saw perfectly well how one might lose his reason with the continuance of these sudden and incessant assaults. It is not dangers that we fear, but worse far; we are kept in a constant state of readiness to meet destruction, and know not whether it will come to-day, or to-morrow, or in a year. Every night we are startled out of sleep, and, like hunted animals, up we spring to await amid an awful darkness the end of an enterprise from which all hope of success has departed. It becomes at last a mere mechanical process to seize our rifles and our bag of necessaries and rush on deck. In the daytime, leaning over the bulwarks of the ship, which trembles, yea, almost quivers the while, we look out on a continual work of destruction going on, and at night as we listen to the loud and ever-increasing noises of the ice, we gather that the forces of our enemy are increasing.”

‘Austrian Arctic Voyage,’ by J. Payer.

Fissure.—A crack, a crevice. *Lat. findo*, I cleave.

Floe.—A large mass of floating ice.

Oscillate.—To sway to and fro; e. g. The magnetic needle is constantly oscillating.

Tremulous.—Trembling.

Commotion.—Excitement, disturbance. *Lat. moveo*, to move.

Perspective.—A picture in which objects are represented at their relative distance.

Intolerable.—That which cannot be endured.

Monotony.—Sameness; e. g. There was a monotony in the journey which soon tired us.

LESSON XLVIII.

THE CID.*

THE gates were then thrown open, and forth at once they rushed,
The outposts of the Moorish hosts back to the camp were
pushed ;

The camp was all in tumult, and there was such a thunder
Of cymbals and of drums, as if earth would cleave in sunder.

There you might see the Moors arming themselves in haste,
And the two main battles, how they were forming fast,
Horsemen and footmen mixt, a countless troop and vast.

The Moors are moving forward, the battle soon must join ;

" My men stand here in order, ranged upon a line !

Let not a man move from his rank before I give the sign ! "

Pero Bermuez heard the word, but he could not refrain,

He held the banner in his hand, he gave his horse the rein.

" You see yon foremost squadron there—the thickest of the foes,

Noble Cid, God be your aid, for there your banner goes !

Let him that serves and honours it, show the duty that he owes."

Earnestly the Cid called out, " For Heaven's sake be still ! "

Bermuez cried, " I cannot hold," so eager was his will.

He spurred his horse and drove him on, amid the Moorish rout :

They strove to win the banner, and compassed him about.

Had not his armour been so true, he had lost either life or limb ;

The Cid called out again, " For heaven's sake succour him ! "

Their shields before their breasts, forth at once they go,

Their lances in the rest levelled fair and low,

Their banners and their crests waving in a row,

Their heads all stooping down towards the saddlebow.

The Cid was in the midst, his shout was heard afar :

" I am Rui Diaz, the champion of Bivar ;

Strike among them gentlemen for sweet mercy's sake ! "

There, where Bermuez fought, amidst the foe they brake.

Three hundred bannered knights, it was a gallant show,

Three hundred Moors they killed,—a man at every blow.

When they wheeled and turned as many more lay slain,

You might see them raise their lances and level them again.

* A title given to Don Rodrigo (Rui Diaz), a Spanish nobleman of the 11th century. It means lord, from Arabic *seid*.

There you might see the breastplates, how they were cleft in twain,

And many a Moorish shield lie scattered on the plain.

The pennons that were white marked with a crimson stain;

The horses running wild, whose riders had been slain.

JOHN HOOKHAM FREERE.

Battle.—Here the main division of an army.

In the rest.—Couched ready for being used.

Pennon.—A small banner.

LESSON XLIX.

THE BLACKHOLE OF CALCUTTA.

A.D. 1756.

THE ill-conduct of Drake, English governor of Calcutta, who had, amongst other reprehensible acts, unjustly imprisoned a very influential native merchant, having drawn the resentment of the Indian prince upon the British Factory, that functionary marched against it in person with a large force, and laid siege to the fort. Drake no sooner witnessed the consequences of his proceedings than he deserted his post, and a Mr. Holwell took the command, resolving to defend the place as long as he was able. This opposition of Mr. Holwell still more inflamed the Indian, who, supposing great treasures to be in the fort, in which the new commander had an interest, pushed on the siege with the greatest vigour. The following is Mr. Holwell's own statement:—"The Suba and his troops were in possession of the fort before six in the evening. At a third interview with him, before seven, he repeated his assurances to me, on the word of a soldier, that no harm should come to us; indeed, I believe his orders were only

general, that we should that night be secured, and that what followed was the result of revenge in the breasts of the inferior officers to whose custody we were delivered, for the number of their order killed during the siege. Be this as it may, as soon as it was dark, we were directed to collect ourselves into one body, and sit down quietly under the arcade. About 400 or 500 men, who were drawn up upon the parade, then advanced, and, with their muskets presented, ordered us to go into the room, commonly called the Blackhole Prison, situated at the end of the barracks.

"I got possession of the window nearest the door and took Messrs. Cole and Scott with me, they being both wounded. It was now about eight o'clock. Figure to yourself the situation of 146 wretches, exhausted by fatigue and action, crammed together in a room eighteen feet square, and open only to the westward by two windows strongly barred with iron, from which we could receive scarcely a breath of air, during a sultry night in the burning climate of India. What must ensue appeared to me, in lively and dreadful colours, the instant I cast my eyes around. Many attempts were made to force the door, but having nothing but our hands to work with, and the door opening inwards, all our endeavours were fruitless. Amongst the guards posted at the window I observed an old Indian sergeant, who seemed to carry some compassion for us in his countenance. I called him, and pressed him to endeavour to get us separated, half in one place, half in another, and told him that he should receive 1000 rupees* for his act of tenderness. He withdrew; but in a few minutes returned, and told me it

* A rupee is of different value in different countries. In India the silver rupee is worth about two shillings of English money.

was impossible. I then thought I had been deficient, in my offer, and I promised him 2000; he withdrew a second time, but returned soon after, and said it could not be done but by the prince's order, and that no one dared to awake him. We had been but a few minutes confined, when every one fell in a perspiration so profuse that it brought on a raging thirst, which increased in proportion as the body was drained of its moisture. Various expedients were thought of to give more room and air. To obtain the former, it was proposed to put off our clothes; this being approved by some, in a few minutes every man was stripped but myself and the few about me. Every hat was then put in motion to produce a circulation of air; and Mr. Baillie next suggested that all should sit on the floor for a while. This expedient was several times put in practice, and each time many of the poor creatures, who could not immediately recover their legs when the word was given to rise, fell to rise no more; for they were instantly trodden to death.

"Before nine o'clock, every man's thirst grew intolerable, and breathing difficult. Efforts were made again to force the door, but in vain. Insults were used to the guards to provoke them to fire upon us. For my own part, I hitherto felt neither pain nor uneasiness, but what resulted from the sufferings of those within. By keeping my face between two of the bars, I obtained air enough to give my lungs easy play, though my perspiration was excessive. At this period, so strong a flavour came from the prison, that I was not able to turn my head that way for more than a few seconds at a time. Everybody now, excepting those situated in or near the window, began to grow outrageous, and many delirious. 'Water! water!' be

came the general cry: and the old sergeant before mentioned, taking pity on us, ordered the people to bring some skins of water. This was what I dreaded. I foresaw it would prove the ruin of the small hope left us, and essayed many times to speak to him privately to forbid its being brought: but the clamour was so loud it became impossible. The water appeared; but words cannot paint the agitation into which the sight of it threw us. Until it came, I had not myself suffered much from thirst, which instantly grew excessive. We had no means of conveying it into the prison but by hats forced through the bars; and thus myself and Messrs. Cole and Scott supplied the rest as fast as possible. The confusion on a sudden became horrible beyond bearing; and many forcing their passage from the farther part of the room, carried down those in their way who had less strength, and trampled them to death.

“From about nine till near eleven I sustained this cruel scene and painful situation, still supplying them with water, though my legs were almost broken with the weight against them. By this time I was nearly squeezed to death; and my two wounded companions, with Mr. Parker, who had forced himself into the window, were actually killed. For a great while the crowd had preserved respect and regard for me; but now all distinction was lost. My friends, Baillie, Law, Buchanan, and others, had for some time been dead at my feet, and were trampled upon by each private soldier, who, by the help of a more robust constitution, could force his way to the window, and hold fast by the bars over me, till at last I became so wedged up as to be deprived of all motion. Determined now to give up everything, I called to them, and begged, as the

last instance of their regard, that they would remove the pressure upon me, and permit me to retire and die in quiet. They gave way, and with difficulty I forced a passage to the centre of the prison, where the throng was less by the many dead, and by the numbers who flocked to the windows. Here my poor friend Mr. Eyre came staggering over the dead to me, and, with his usual coolness and goodnature, asked me how I did, but fell and expired before I had time to make him a reply. I laid myself down on some of the dead behind me, and recommending myself to Providence, had the comfort of thinking my sufferings could have no long duration. My thirst, however, grew insupportable, and the difficulty of breathing much increased. I had not remained in this situation many minutes when I was seized with a violent pain in my breast, and palpitation of the heart, which obliged me to get up again; but still the pain, palpitation, and difficulty of breathing increased. I retained my senses notwithstanding; and called aloud for 'water, for God's sake!' I had been concluded dead; but as soon as the survivors found me amongst them, they still had the respect for me to cry out 'Give him water!' nor would any one of them attempt to touch it until I had partaken of it. My thirst being increased by the fluid, I determined to drink no more, but kept my mouth moist from time to time by sucking the perspiration out of my shirt-sleeves, and catching the drops as they fell like heavy rain from my head and face. You can hardly imagine how unhappy I was if any of them escaped my mouth.

"By eleven, the greater number of those living were in an outrageous delirium, and the others quite ungovernable; few retaining any calmness, excepting

those next the windows. They all now found that water heightened their uneasiness, and 'Air! air!' was the general cry. Every insult that could be devised against the guard was resorted to, to provoke them to fire on us. But as all was of no avail, many, whose strength and spirits were quite exhausted, laid themselves down, and expired quietly upon their fellows. A steam now rose from the living and the dead, which for a time most awfully affected us. I need not ask your commiseration when I tell you, that from this time till near two in the morning, I sustained the weight of two heavy men; one a Dutch sergeant, who had taken his seat upon my left shoulder, and the other a black, who occupied my right; all which nothing could have enabled me to support, but the props and pressure equally sustaining me all around. I at length forced my way from the spot, and saw several in the inner ranks dead, though standing, being kept in that position by the throng. Finding a stupor coming on apace, I placed myself by the side of that gallant old man, the Rev. Mr. Bellamy, who lay dead with his son, the lieutenant, hand-in-hand, near the southmost wall of the prison; but of what passed from this moment to the time of my liberation, I can give no account.

"When the day broke, I am told it occurred to Mr. Secretary Cook to make a search for me, in the hope that I might have influence enough to gain a release from this scene of misery. Accordingly I was, by my shirt, discovered under the dead, and brought towards the window I had originally possession of. At this juncture, the Indian governor, who had received an account of the havoc death had made amongst us, sent one of his sergeants to inquire if the chief survived.

They showed me to him; told him I had the appearance of life remaining; and believed I might recover if the door was opened very soon. On this an order came immediately for our release, it being then near six in the morning; but as the door turned inwards, and the dead were piled up against it, and covered all the floor, it was impossible to open it by efforts from without. It became, therefore, necessary that the bodies should be removed by the few who were within, who were become so feeble, that the task, though on the condition of life, was not performed without the utmost difficulty; and it was twenty minutes after the order came before the egress of the survivors could be effected. About a quarter after six, the poor remains of 146 souls, being no more than twenty-three, came out of the Blackhole alive; but in a condition which made it very doubtful whether they would see the morning of another day."

Mr. Holwell and the rest of the survivors were conveyed in a coach drawn by oxen to Patna, where they were soon after released by the Indian governor, at the intercession of his grandmother; and taking boat, they departed for a neighbouring Dutch settlement, whence they set sail for England.

From Prince's 'Parallel History.'

Reprehensible.—Blameworthy; e. g. His conduct was highly reprehensible.

Resentment.—The feeling we experience when we suffer an undeserved injury.

Expedients.—Means employed for getting out of a difficulty.

Palpitation.—Beating. *Lat.* palpito, to throb.

Commiseration.—Pity.

Apace.—Rapidly.

LESSON L.

THE DEATH OF WOLFE.

THE eventful night of the 12th September, 1759, was clear and calm, with no light but that of the stars. Within two hours before daybreak, thirty boats, crowded with sixteen hundred soldiers, cast off from the vessels, and floated downward, in perfect order, with the current of the ebb-tide. To the boundless joy of the army, Wolfe's malady had abated, and he was able to command in person. His ruined health, the gloomy prospects of the siege, and the disaster to Montmorenci, had oppressed him with the deepest melancholy, but never impaired for a moment the promptness of his decisions or the impetuous energy of his action. He sat in the stern of one of the boats, pale and weak, but borne up to a calm height of resolution. Every order had been given, every arrangement made, and it only remained to face the issue. The ebbing tide sufficed to bear the boats along, and nothing broke the silence of the night but the gurgling of the river, and the low voice of Wolfe as he repeated to the officers about him the stanzas of Gray's 'Elegy in a Country Churchyard,' which had recently appeared, and which he had just received from England. Perhaps, as he uttered those strangely appropriate words,—

"The paths of glory lead but to the grave,"—

the shadows of his own approaching fate stole with mournful prophecy across his mind. "Gentlemen," he said, as he closed his recital, "I would rather have written those lines than take Quebec to-morrow."

They reached the landing-place in safety—an inden-

tation in the shore about a league from the city, and now bearing the name of Wolfe's Cove. Here a narrow path led up the face of the heights, and a French guard was posted at the top to defend the pass. By the force of the currents, the foremost boats, including that which carried Wolfe himself, were borne a little below the spot. The general was one of the first on shore. He looked up at the rugged heights that towered above him in the gloom. "You can try it," he coolly observed to an officer near him; "but I don't think you'll get up."

At the point where the Highlanders landed, one of their captains, Donald Macdonald, was climbing in advance of his men, when he was challenged by a sentinel. He replied in French, by declaring that he had been sent to relieve the guard, and ordering the soldier to withdraw. Before the latter was undeceived, a crowd of Highlanders were close at hand, while the steep slopes below were thronged with eager climbers, dragging themselves up by trees, roots, and bushes. The guard turned out, and made a brief though brave resistance. In a moment they were cut to pieces, dispersed, or made prisoners; while men after men came swarming up the height, and quickly formed upon the plains above. Meanwhile the vessels had dropped downward with the current, and anchored opposite the landing-place. The remaining troops were disembarked, and with the dawn of day the whole were brought in safety to the shore.

The sun arose, and from the ramparts of Quebec the astonished people saw the plains of Abraham glittering with arms, and the dark red lines of the English forming in array of battle. . . .

It was nine o'clock, and the adverse armies stood

motionless, each gazing on the other. The clouds hung low, and, at intervals, warm, light showers descended, besprinkling both alike. The coppice and corn-fields in front of the British troops were filled with French sharpshooters, who kept up a distant, sputtering fire. Here and there a soldier fell in the ranks, and the gap was filled in silence.

At a little before ten, the British could see that Montcalm was preparing to advance, and in a few moments all his troops appeared in rapid motion. They came on in three divisions, shouting after the manner of their nation, and firing heavily as soon as they came within range. In the British ranks, not a trigger was pulled, not a soldier stirred; and their ominous composure seemed to damp the spirits of their assailants. It was not till the French were within forty yards that the fatal word was given. At once from end to end of the British line, the muskets rose to the level, as if with the sway of some great machine, and the whole blazed forth at once in one crashing explosion. Like a ship at full career arrested with sudden ruin on a sunken rock, the columns of Montcalm staggered, shivered, and broke before that wasting storm of lead.

The smoke, rolling along the field, for a moment shut out the view; but when the white wreaths were scattered on the wind, a wretched spectacle was disclosed—men and officers tumbled in heaps, columns resolved into a mob, order and obedience gone; and when the British muskets were levelled for a second volley, the masses were seen to cower and shrink with uncontrollable panic.

For a few minutes, the French regulars stood their ground, returning a sharp and not ineffectual fire.

But now echoing cheer on cheer, redoubling volley on volley, trampling the dying and the dead, and driving the fugitives in crowds, the British troops advanced, and swept the field before them. The ardour of the men burst all restraint. They broke into a run, and with unsparing slaughter chased the flying multitude to the very gates of Quebec. Foremost of all, the light-footed Highlanders dashed along in furious pursuit, hewing down the Frenchmen with their broadswords, and slaying many in the very ditch of the fortifications. Never was victory more quick or more decisive.

In the short action and pursuit, the Frenchmen lost fifteen hundred men, killed, wounded, and taken. Of the remainder, some escaped within the city, and others fled across the St. Charles, to rejoin their comrades who had been left to guard the camp. The pursuers were recalled by sound of trumpet; the broken ranks were formed afresh, and the English troops withdrawn beyond reach of the cannon of Quebec. Bougainville with his detachment, arrived from the upper country, and hovering about their rear, threatened an attack; but when he saw what greeting was prepared for him, he abandoned his purpose, and withdrew. Townshend and Murray, the only general officers who remained unhurt, passed to the head of every regiment in turn, and thanked the soldiers for the bravery they had shown: yet the triumph of the victors was mingled with sadness, as the tidings went from rank to rank that Wolfe had fallen.

In the heat of the action, as he advanced at the head of the grenadiers of Louisburg, a bullet shattered his wrist; but he wrapped his handkerchief about the wound, and showed no sign of pain. A moment more, and a ball pierced his side. Still he pressed forward,

waving his sword, and cheering his soldiers to the attack, when a third shot lodged deep within his breast. He paused, reeled, and staggering to one side, fell to the earth. Brown, a lieutenant of the grenadiers, Henderson, a volunteer, an officer of artillery, and a private soldier, raised him together in their arms, and bearing him to the rear, laid him softly on the grass. They asked him if he would have a surgeon; but he shook his head and answered that all was over with him. His eyes closed with the torpor of approaching death, and those around sustained his fainting form. Yet they could not withhold their gaze from the wild turmoil before them, and the charging ranks of their companions rushing through fire and smoke. "See how they run!" one of the officers exclaimed, as the French fled in confusion before the levelled bayonets. "Who run?" demanded Wolfe, opening his eyes like a man aroused from sleep. "The enemy, sir," was the reply; "they give way everywhere." "Then," said the dying general, "tell Colonel Burton to march Webb's regiment down to Charles River, to cut off their retreat from the bridge. Now, God be praised, I will die in peace," he murmured; and turning on his side, he calmly breathed his last. PARKMAN.

Malady.—Sickness, disease; e. g. He suffered from a hopeless malady.

Impair.—To injure; e. g. He impaired his health by exposure.

Indentation.—An opening. *Lat. dens*, at ooth. To indent a paper is to notch the edge so as to make it like a row of *teeth*.

Coppice (the fuller form of *copse*).—A wood, consisting mainly of underwood, often cut. *Fr. couper*, to cut.

Ominous.—Threatening, foreboding ill.

Panic.—Unreasoning fear, such as was attributed to the influence of the god Pan.

Torpor.—Numbness, insensibility. *Lat. torpeo*, to be numb.

LESSON LI.**DISCOVERY OF NEWFOUNDLAND.**

IN the spring of the year 1497, a small squadron of ships sailed from Bristol, in search of a passage to India by the north-west. Two men of Venetian origin, John Cabot and his son Sebastian, a youth of twenty years of age, undertook their guidance. After a toilsome voyage of many weeks, they entered a region of vast banks, fogs, and mists, but continued on with unshaken hardihood. About three o'clock on the morning of the 24th of June, they reached a land hitherto unnoted in any map or record; sterile and uncultivated, abounding in great white bears and elks. The discoverers called this country by a name signifying "rich in fish," from the numbers which swarmed in the rivers and along the sea-coast. The inhabitants were wild and unfriendly, clothed with the skins of beasts, and painted with a reddish clay.

The Cabots returned to England that year, and it does not appear that any further notice was taken of this country, which the English called Newfoundland, till 1534; when the brave Jacques Cartier, with only sixty men, sailed from St. Malo in two small vessels, under the French flag, and nearly circumnavigated the island. He found it to be a great triangle, of irregular shape, and about nine hundred miles round, with deep indentures and numerous harbours, but with a soil everywhere unfruitful.

Two Englishmen, named Elliott and Thorn, traded there for some years under the protection of Henry VIII., obtaining rich furs from the natives. At length these unhappy men, with a body of their dependants,

made a settlement, and determined to remain there over the winter. They knew not what they had to meet; their provisions failed, none of them survived; and tradition says they ate each other.

The most remarkable among the adventurers who visited these bleak shores, for many years afterwards, was Sir Humphrey Gilbert. He took possession in the name of Queen Elizabeth, but was lost on his return to England: his good brave words in the storm, however, are left us still, "Courage, friends! we are as near heaven here as on the land."

From the beginning of the seventeenth century the French had a settlement at Placentia, on the south coast. In the year 1622, George Calvert landed from England, having with him seeds, grain, and cattle. His settlers were successful, and some of their descendants founded, on a commodious harbour, the capital, St. John's.

At the treaty of Utrecht, Louis XIV. of France gave up his claim to the island, which probably he did not care much about, as his subjects retained the right of fishing. It has ever since remained an English colony, and is at present garrisoned by three companies of infantry. The barren soil and ungenial climate defy the skill and industry of the husbandman: wheat does not grow, the scanty crops of barley and oats rarely ripen; from sheltered places near the towns a moderate supply of potatoes and garden vegetables is forced from the unwilling earth. There are a few cattle, the grasses being plentiful and nutritious. All else, for the use of man, comes from over the sea. During the summer, some of the lakes and bays are rich in short-lived beauty. Few have penetrated into the interior for any distance; the hills, as you advance, rise into mountains,

the shrubs into trees; there is an idea that the centre of the island is a great valley, filled with numerous lakes and impassable morasses; none of the rivers are navigable far up the country, and there seems but little to tempt the explorer.

The natives met with in the first discovery were Esquimaux; fierce men of stalwart frame and intractable disposition; their complexion was a dark-red, they were bold hunters and fishers, and of great courage in battle. From the first, they and the white men were deadly foes. The Mic-mac Indians of Nova Scotia and those red men carried on a war of extermination against each other for centuries; each landing, with destructive swoop, on the others' coast, scalping the men, and carrying the women into slavery. The Esquimaux warriors were more frequently victorious, till, in an evil hour, they provoked the wrath of the pale faces: the rifle and bayonet soon broke their spirit; abandoning the coasts and the hunting-grounds of their fathers, they fled into the dreary forests of the interior; sometimes, in the long winter nights, they crept out from their wild fastnesses, and visited some lonely hamlet with a terrible vengeance. The settlers in return hunted them down like wolves, and in the course of years, their life of misery reduced their numbers, and weakened their frames so much, that they never ventured to appear; it was known that some few still lingered, but they were almost forgotten.

The winter of 1830 was unusually severe in this country, and prolonged beyond those of former years. Towards its close, a settler was hewing down trees at some distance from one of the remote villages, when two gaunt figures crept out from the neighbouring "bush": with sad cries and imploring gestures they tried to

express their prayer for help; the white man, terrified by their uncouth and haggard looks, seized his gun, which unhappily lay at hand, and shot the foremost; the other tossed his lean arms wildly into the air—the woods rang with his despairing shrieks as he rushed away. Since then none of the fallen race have been seen. The emaciated frame of the dead man showed how dire had been their necessity. There is no doubt that the last of the red men perished in that bitter winter.

Warburton's '*Hochelaga*.'

Sterile.—Barren.

Indentures.—Openings, indentations.

Morass.—A marsh, bog.

Stalwart.—Vigorous, lusty.

Intractable.—Unmanageable. *Lat. tracto*, to handle.

Extermination.—Utter destruction.

Emaciated.—Wasted, gaunt. *Lat. macies*, leanness.

LESSON LII.

THE INDIAN.

Now had the autumn day gone by, and evening's yellow shade
Had wrapt the mountains and the hills, and lengthen'd o'er the
glade.

The honey-bee had sought her hive, the bird her shelter'd nest,
And in the hollow valley's gloom both wind and wave had rest.

And to a cottar's hut that eve there came an Indian chief;
And in his frame was weariness, and in his face was grief.

The feather o'er his head that danced was weather-soiled and
rent,

And broken were his bow and spear, and all his arrows spent.

And meek and humble was his speech; he knew the white
man's hand

Was turned against those wasted tribes, long scourged from the
land.

He prayed but for a simple draught of water from the well,
And a poor morsel of the food that from his table fell.

He said that his old frame had toil'd a wide and weary way,
O'er the sunny lakes and savage hills and through the woods
that day.

Yet when he saw they scoff'd his words, he turn'd away in woe,
And cursed them not, but only mourn'd that they should shame
him so.

When many years had flown away, the herdsman of the hill
Went out into the wilderness the wolf and bear to kill—
To scatter the red deer, and slay the panther in his lair,
And chase the rapid moose that ranged the sunless forests there.

And soon his hounds lay dead with toil; the deer were fierce and
fleet,
And the prairie tigers kept aloof when they heard his hostile
feet.

No bread was in that desert place, nor crystal rivulet
To slack the torment of his thirst, or his hot brow to wet.

He fear'd—he fear'd to die—yet knew that nought on earth
could save;

For none might catch his parting breath and lay him in his
grave.

But lo! while life's dim taper still burn'd feebly in his breast,
A ministering angel came—his hated Indian guest!

He shared his wheaten loaf with him—his cup of water shared,
And bore the sick man unto those for whom his heart most
cared.

"I cursed thee not," the Indian said, "when thou wast stern to
me,
And I have had my vengeance now; white man! farewell to
thee!"

M'LELLAN.

Moose.—A large deer, sometimes weighing 1200 lb.

Prairie tiger.—Probably the jaguar.

LESSON LIII.

BLAISE PASCAL.

ONE bright summer evening at the close of the year 1632, a pale, thoughtful-looking man was sitting in one of the rooms in a large house in Paris, at a table strewn with books and maps, whilst his little bright-eyed boy looked up wistfully into his face longing to ask a question.

"Father," he said, at last, "do tell me what geometry is, for I don't know."

Etienne Pascal smiled down at the young face. "Oh, Blaise, do not trouble your little brain with such things. Geometry, my boy, is a science which teaches us how to form figures in a precise manner, and how to consider their length, breadth, and depth. Now, you cannot understand that!"

"I will learn," said the little Blaise. "Father, you must teach me geometry."

"No, no," said the father; "run into the garden and play with your cousin—you are too much given to poring over books already."

"Oh, dear father, I do not care for Charles; let me stay here with you; and please tell me if the lines you draw are a part of geometry?"

Etienne pushed aside his books, with a sigh, and took the little lad's hand. "I will take you for a walk then, Blaise, but I forbid you to ask me any questions about geometry."

The boy obeyed, and as he never repeated his inquiries, and gradually left off lingering so long in the study, his father believed that he was at last full of

the amusements of his age, and that circles and triangles were forgotten.

But one day when he entered a lumber-room at the end of a long corridor, which was seldom visited, he saw his little Blaise kneeling on the floor, a piece of charcoal in his hand, busily engaged in drawing triangles, circles, and parallelograms so intently that he never noticed the opening of the door, and only raised his head as he heard the voice of his father, who exclaimed, "Child, what are you doing?"

"Oh, father, don't be angry; indeed I could not help it. You see, though I tried and tried I never could put geometry out of my mind—not even at night, so I came here to try and work out those lines."

M. Pascal looked, and saw with surprise that little Blaise had without instruction attained a wonderful degree of knowledge, and from that time he ceased to check his desire to learn, and he carefully instructed him in his own beloved science.

Before he had reached nineteen years of age Blaise Pascal had written several scientific books and treatises, which made his name famous; but after some years of these studies he resolved to devote the rest of his life to an exposition of the Christian religion. For this purpose he began a great work, but he was repeatedly interrupted by attacks of illness, and it was only partly completed when he died.

At thirty years of age Blaise was nearly worn out from his excessive application to study, but a fright caused by an accident in driving caused him a severe shock, from which he never rallied.

His gentle, patient nature shone more brightly during his bodily pain, and his charity and kindness to the poor continually increased. Yet in all his good

deeds Pascal never allowed his name to be known, and only after his death was it found out that he had been so generous in his alms. One of his favourite maxims was, "If you wish others to speak well of you, never speak well of yourself."

But his illness drew to its close, and after much suffering and great patience the gentle spirit of Blaise Pascal returned to the God he had loved on earth, in the month of August, 1662. He was but thirty-nine years of age, but he had lived long enough to leave behind him a name which will live amongst men, both for his splendid talents and for the self-denying benevolence and the deep piety of his heart.

'Chatterbox,' for 1876.

Wistfully.—Eagerly, inquiringly.

Rally.—To recover one's strength.

LESSON LIV.

MARVELS OF HUMAN CALORIC.

WE must be plain with our readers. It will not do to mince matters where questions of science are concerned. Dainty people will, no doubt, object to the proposition we are about to advance. Nevertheless, we persist. Fearless of the consequences, utterly unawed by the hisses which we know will ensue, we proceed to lay down the following assertion:—We are all living stoves—walking fire-places—furnaces in the flesh.

Now we do not intend to say that anyone can light a cigar, or boil an egg, or even ignite a lucifer match at these human hearths. Still, we repeat, these bodies of

ours are stoves—fire-places—furnaces, if these terms can be applied to any apparatus for the express production of caloric. And is not heat produced in the human body by the union of oxygen with carbon, just the same as by the burning of wood in an open fire-place? and does not this union take place in the capillaries of the blood-vessels?

But, granting that our bodies are veritable stoves, the reader will desire to know where we procure our fuel. Fortunately our coal and firewood are stored up in a very interesting form. They are laid before us in the shape of bread and butter, puddings and pies; rashers of bacon for the labourer, and haunches of venison or turtle-soup for the epicure. Instead of being brought up in scuttles, they are presented in tureens, dishes, or tumblers, or all of them, in pleasant succession.

In fact, whenever you send a person an invitation to dinner, you virtually request the honour of his company to take fuel; and when you see him enthusiastically employed on your dainties, you know that he is literally "shovelling" fuel into his corporeal stove. The ultimate form in which this fuel is burned in the capillaries is that of carbon, with a little hydrogen and sulphur; but we swallow it in the shape of fat, starch, sugar, alcohol, and other less inflammatory compounds. By far the most heating of these substances is fat; ten pounds of this material imported into your stove will do as much work—that is, will produce as much warmth—as twenty-five pounds of starch, twenty-five of sugar, or even twenty-six of spirits.

And a pleasant thing it is to observe how sagaciously the instinct of man has fastened upon the articles which will best supply him with the species of fuel he re-

quires. The Esquimaux is extremely partial to oily fare. He does not know why. He never heard of the doctrine of animal heat; but he feels intuitively that bear's grease and blubber are the things for him. Condemn him to live on potatoes or Indian corn, and the poor fellow would resent the cruelty as much as an alderman of the old school if sentenced to subsist on water-gruel alone.

And the savage would be perfectly right. Exposed as he is to the fierce cold of a northern sky, every object around him plundering him of his caloric incessantly, what he needs is plenty of oily food, because from this he can produce the greatest quantity of heat. On the other hand, the native of the tropics, equally ignorant of animal chemistry, eschews the fiery diet, which his climate renders inappropriate, and keeps himself cool on rice, or dates, or watery fruits.

Hence we see the reason why a very stout man, if deprived of food, can keep up his corporeal fires for a longer time than a slender one. Human fat is fuel laid away for use. It constitutes a hoard of combustible material upon which the owner may draw whenever his ordinary supplies are intercepted. Let all plump persons, therefore, rejoice. We offer them our hearty, perhaps somewhat envious, congratulations. They, at any rate, are prepared to stand a long siege from cold.

For the same reason, animals which hibernate, like the bear, jerboa, marmot, dormouse, bat, and others, generally grow plump before they retire into winter quarters. Upon their capital of fat they subsist during their lethargy, their respiration being lessened, the pulse reduced to a few beats per minute, and the temperature perhaps nearly to the freezing point. But, when the season of torpor terminates, they issue from

their caves and burrows meagre and ravenous, having burned up their stock of fuel, Bruin himself appearing to be anxious to defraud the perfumers of the unguent which is so precious in their eyes.

But perhaps the most striking feature in this warmth-producing apparatus within us, is the self-regulating power which it possesses. The fires on our domestic hearths decline at one moment, and augment at another. Sometimes the mistress of the house threatens to faint, on account of excessive heat; sometimes the master endeavours to improve the temperature by a passionate use of the poker, with an occasional growl respecting the excessive cold.

Were such irregularities to prevail unchecked in our fleshy stoves, we should suffer considerable annoyance. After a meal of very inflammatory materials, or an hour spent in extraordinary exertion, the gush of caloric might throw the system into a state of high fever. How is this prevented? In some of our artificial stoves, little doors or slides are employed to control the admission of air; in furnaces connected with steam engines, we may have dampers which will accomplish the same purpose by the ingenious workings of the machine itself.

But neither doors nor dampers, pokers nor stokers, can be employed in the bodily apparatus. If, on the one hand, our human fire should begin to flag from undue expenditure of heat, the appetite speaks out sharply, and compels the owner to look round for fuel. Hunger rings the bell, and orders up coals in the shape of savoury meats. Or, should the summons be neglected, the garnered fat, as we have seen, is thrown into the grate to keep the furnace in play.

If, on the other hand, the heat of the body should

become unreasonably intense, a very cunning process of reduction is adopted. When a substance grows too hot, the simplest method of bringing it into a cooler frame is to sprinkle it with water. This is precisely what occurs in our human frames. For no sooner does our internal heat rise above its standard height, than the perspiration tubes, with their six or seven millions of openings, indignant at the event, begin to pour out their fluid, so as to bathe the surface of the whole body. Whenever, therefore, a man becomes overheated by working, running, rowing, fighting, making furious speeches, or other violent exertions, he invariably resorts to this method of quenching the heat, "by pouring on water."

What shall we say, then, good reader? Speaking seriously, and looking at the question from a mere human point of view, could any project appear more hopeless than one for burning fuel in a soft, delicate fabric like the human body—a fabric composed for the most part of mere fluids—a fabric which might be easily scorched by excess of heat, or damaged by excess of cold? Does it not seem strange that a stove should have flesh for its walls, veins for its flues, and skin for its covering? Yet here is an apparatus which, as if by magic, produces a steady stream of heat—not trickling penuriously from its fountains, but flowing on day and night, winter and summer, without a moment's cessation, from January to December.

Carry this splendid machine to the coldest regions of the globe, set it up where the frosts are so crushing that nature seems to be trampled dead, still it pours out its mysterious supplies with unabated profusion. It is an apparatus, too, which does its work unwatched, and in a great measure unaided. The very fuel which is

thrown into it in random heaps, is internally sifted and sorted, so that the true combustible elements are conveyed to their place, and applied to their duty with unerring precision.

No hand is needed to trim its fires, to temper its glow, to remove its ashes. Smoke there is none, spark there is none, flame there is none. All is so delicately managed that the fairest skin is neither shrivelled nor blackened by the burning within. Is this apparatus placed in circumstances which rob it too fast of its caloric? Then the appetite becomes clamorous for food, and, in satisfying its demands, the fleshy stove is silently replenished. Or, are we placed in peril from superabundant warmth? Then the tiny floodgates of perspiration are flung open, and the surface is laid under water until the fires within are reduced to their wonted level.

Assailed on the one hand by heat, the body resists the attack, if resistance be possible, until the store of moisture is dissipated; assailed on the other by cold, it keeps the enemy at bay until the hoarded stock of fuel is expended. Thus protected, thus provisioned, let us ask whether these human hearths are not entitled to rank among the standing marvels of creation? For, is it not startling to find that, let the climate be mild or vigorous, let the wind blow from the sultry desert, or come loaded with polar sleet, let the fluctuations of temperature be as violent as they may without us, there shall still be a calm, unchanging, undying summer within us?

DR. GEORGE WILSON.

Caloric.—Heat. *Lat.* calor, warmth, heat.

Capillaries.—Minute vessels by which the terminal veins and arteries are connected. *Lat.* capillus, hair.

Epicure.—A person who takes too much delight in the pleasures of eating and drinking.

Intuitively.—Without reasoning; by immediate perception.
Eschew.—To carefully avoid.
Hybernate.—To pass the winter in a torpid state.
Lethargy.—Inactivity.
Bruin.—The name jocularly given to the bear.
Unguent.—An ointment. *Lat. unguo*, to anoint.
Garnered.—Stored up as in a garner or granary.
Penuriously.—Sparingly. *Lat. penuria*, want.
Profusion.—Abundance. *Lat. fundo*, to pour.
Dissipate.—To scatter, expend. *Lat. dissipo*, to spread abroad.
Fluctuations.—Variations up and down. *Lat. fluctus*, a wave.

LESSON LV.

PAUL REVERE'S RIDE.

LISTEN, my children, and you shall hear,
 Of the midnight ride of Paul Revere,
 On the eighteenth of April, in seventy-five;—
 Hardly a man is now alive
 Who remembers that famous day and year.

He said to his friend, "If the British march
 By land or sea from the town to-night,
 Hang a lantern aloft in the belfry-arch
 Of the North Church tower as a signal light,—
 One, if by land, and two, if by sea;
 And I on the opposite shore will be,
 Ready to ride and spread the alarm
 Through every Middlesex village and farm,
 For the country-folk to be up and to arm."

Then said he, "Good-night!" and with muffled oar
 Silently rowed to the Charlestown shore,
 Just as the moon rose over the bay,
 Where swinging wide at her moorings lay
 The Somerset British man-of-war;
 A phantom ship, with each mast and spar
 Across the moon like a prison bar,

And a huge black hulk that was magnified
By its own reflection in the tide.

Meanwhile, his friend through alley and street,
Wanders and watches with eager ears,
Till in the silence around him he hears
The muster of men at the barrack door,
The sound of arms and the tramp of feet,
And the measured tread of the grenadiers,
Marching down to their boats on the shore.

Then he climbed to the tower of the church,
Up the wooden stairs, with stealthy tread,
To the belfry-chamber overhead,
And startled the pigeons from their perch
On the sombre rafters, that round him made
Masses and moving shapes of shade,—
Up the trembling ladder, steep and tall,
To the highest window in the wall,
Where he paused to listen, and look down
A moment on the roofs of the town,
And the moonlight flowing over all.

Beneath, in the churchyard, lay the dead,
In their night-encampment on the hill,
Wrapped in silence so deep and still
That he could hear, like a sentinel's tread,
The watchful night-wind, as it went
Creeping along from tent to tent,

And seeming to whisper, "*All is well!*"
A moment only he feels the spell
Of the place and the hour, and the secret dread
Of the lonely belfry and the dead;
For suddenly all his thoughts are bent
On a shadowy something far away,
Where the river widens to meet the bay,—
A line of black that bends and floats
On the rising tide, like a bridge of boats.
Meanwhile, impatient to mount and ride,
Booted and spurred, with a heavy stride
On the opposite shore walked Paul Revere.

Now he patted his horse's side,
Now gazed at the landscape far and near,
Then, impetuous, stamped the earth,
And turned and tightened his saddle-girth ;
But mostly he watched with eager search
The belfry-tower of the Old North Church,
As it rose above the graves on the hill,
Lonely and spectral and sombre and still ;—

And lo ! as he looks on the belfry's height,
A glimmer, and then a gleam of light !
He springs to the saddle, the bridle he turns,
But lingers and gazes, till full on his sight
A second lamp in the belfry burns !

A hurry of hoofs in a village street,
A shape in the moonlight, a bulk in the dark,
And beneath, from the pebbles, in passing, a spark,
Struck out by a steed flying fearless and fleet :
That was all ! And yet through the gloom and the light,
The fate of a nation was riding that night ;
And the spark struck out by that steed, in his flight
Kindled the land into flame with its heat.

He has left the village, and mounted the steep,
And beneath him, tranquil and broad and deep,
Is the Mystic meeting the ocean tides ;
And under the alders that skirt its edge,
Now soft on the sand, now loud on the ledge,
Is heard the tramp of his steed as he rides.

It was twelve by the village clock
When he crossed the bridge into Medford town.
He heard the crowing of the cock,
And the barking of the farmer's dog,
And felt the damp of the river fog,
That rises after the sun goes down.

It was one by the village clock
When he galloped into Lexington.
He saw the gilded weathercock
Swim in the moonlight as he passed,

And the meeting-house windows, blank and bare,
Gaze at him with a spectral glare,
As if they already stood aghast
At the bloody work they would look upon.

It was two by the village clock
When he came to the bridge in Concord town.
He heard the bleating of the flock,
And the twitter of birds among the trees,
And felt the breath of the morning breeze
Blowing over the meadows brown.
And one was safe and asleep in his bed
Who at the bridge would be first to fall,
Who that day would be lying dead
Pierced by a British musket-ball.

You know the rest. In the books you have read
How the British Regulars fired and fled,—
How the farmers gave them ball for ball,
From behind each fence and farmyard wall,
Chasing the red-coats down the lane,
Then crossing the fields to emerge again
Under the trees at the turn of the road,
And only pausing to fire and load.

So through the night rode Paul Revere;
And so through the night went his cry of alarm
To every Middlesex village and farm,—
A cry of defiance, and not of fear,
A voice in the darkness, a knock at the door,
And a word that shall echo forevermore!
For, borne on the night-wind of the Past,
Through all our history, to the last,
In the hour of darkness and peril and need,
The people will waken and listen to hear
The hurrying hoof-beats of that steed,
And the midnight message of Paul Revere.

LONGFELLOW.

Sombre.—Gloomy.

Mystic.—A river in Massachusetts on which Charlestown stands.

Regulars.—Regular soldiers as distinguished from the militia and volunteers.

LESSON LVI.

THE BATTLE OF WATERLOO.

It was about midnight on Thursday, the 15th of June, 1815, the Duke of Wellington received at the Duchess of Richmond's ball, at Brussels, the second and positive information from Blucher that the French were advancing in their strength. After remaining abstracted a few minutes, and having apparently formed his decision, he gave his usual clear and concise orders to one of his staff officers, who immediately left the room, and was as gay and animated as ever; he stayed supper, and then went home. But the word of battle had gone forth—the profound repose which reigned over Brussels was suddenly broken by the trumpet's call, and the roll of the drum from every part of the city. Regiment after regiment formed with the rapidity of thought, and marched out of the city—to glory and death. Sixteen leagues were to be traversed before they could meet their enemies.

On the 16th of June, Napoleon defeated Blucher, at Ligny, and forced him to retreat to Wavre, which compelled the Duke of Wellington to make a corresponding retrograde movement, in order to keep up a communication with the Prussians, and to retire on the 17th towards Waterloo, where, on the 18th—the ever to be remembered glorious 18th of June, 1815—the great battle was fought which gave peace to Europe, and added the crowning triumph to the arms of England.

After some skirmishing between the piquets, the French commenced the engagement about ten o'clock in the morning, on the Chateau of Hougoumont; it

was taken and re-taken several times, being bravely defended by the English guards, who remained masters of the position; at the same time the French kept up a heavy cannonade against the whole line, and made repeated charges with heavy masses of cuirassiers, supported by close columns of infantry. They were received by the allies, formed into squares, and the artillery being skilfully planted told effectively. Despairing of mastering Hougoumont, the enemy made a desperate attack on La Haye, which was resolutely defended by the Scotch regiments and Hanoverians, but was carried at the point of the bayonet. Animated by this success, they renewed their efforts on the British centre; charges of infantry and cavalry followed thick on each other, with astonishing pertinacity. In bringing up his division, the brave Sir Thomas Picton was shot through the head. A grand charge of British cavalry ensued, which for a moment swept everything before it, but assailed in its turn by masses of cuirassiers and Polish lancers, it was forced back, and in the *mêlée* Sir William Ponsonby, and other gallant officers were slain.

It was four o'clock—masters of La Haye, the French began to clear the ground in their rear towards St. Jean, and Wellington himself felt so hard pressed that he was heard to say, "I wish to God night or Blucher would come." A cannonade was heard on the extreme left, it was the corps of Bulow, which had been kept back three hours in the passage of a defile. Against the new foe Napoleon dispatched Count Lobau, while he prepared, by one last effort, to overwhelm the British before effectual succour could reach them. At seven in the evening he brought forward the Imperial Guards, sustained by the best regiments of horse and

foot, amid shouts of "*Vive l'Empereur!*" and flourishes of martial music. Some disorder, however, occurring in the columns as they advanced, owing to the eagerness of the movement, the British commander seized the favourable juncture, and promptly directed a counter charge. This was so unexpected that panic seized the advancing French, and almost before the bayonets crossed, these veteran warriors fled in confusion, despite of every effort of the gallant Ney to rally his flying bands. At the same moment the Prussians, who had arrived in full force, falling on the flank and rear of the enemy, completed the victory. Napoleon observing the recoil of his columns on all sides, and the remediless confusion around him, said, "All is lost! Save himself who can!" and retreated across the fields. They were pursued by the victors till after dark, when the British, who had been under arms during the whole of the preceding tempestuous night, overcome with fatigue, halted, and left the further pursuit to the Prussians. The task was well performed, and nothing could be more complete than the discomfiture of the routed army; all their camp equipage, artillery, and even the private carriage of Napoleon were abandoned. Exclusive of the slaughter in and after the battle, 7000 prisoners were taken. The loss of the allies was great; that of the British and Hanoverians alone amounted to 13,000. The British officers suffered severely: two generals and four colonels fell in the field, and nine generals and five colonels were wounded; among them Lord Uxbridge, who had fought bravely, and was wounded with almost the last shot of the enemy. Such in its main circumstances was the Battle of Waterloo; the most important, gallant, and scientifically contested of modern engagements.

At the commencement of the action the Duke of Wellington, on horseback, surrounded by his staff, stood on the high ground on the right of the high road from Brussels to Genappe. To say where he afterwards was is impossible; it would be more difficult to say where he was not; wherever his presence was most requisite he was to be found—he seemed to be everywhere present. Exposed to the hottest fire, in the most conspicuous position, he stood, reconnoitring with his glass, watching the enemy's manœuvres, and issuing orders with the most intrepid coolness, while balls and shells showered around him, and his staff officers fell wounded and dying by his side. Sir William de Lancey received the shot which occasioned his death while the duke was in close conversation with him; and many of his escapes seemed almost miraculous. In the whole of the contest he performed all the duties a military man could perform; *he was general of division, commander of corps, and colonel of a regiment.* He at times headed different regiments, and rallied them to attack. His conduct in this great battle threw all his former actions into the shade; he never moved but in fire; and when the hottest charges were made by the enemy he threw himself into the hollow square that was charged. So tremendous were the dangers he braved, and so astonishing his escapes, that the hand of a protecting Providence seemed to have shielded him through the perils of that eventful day, to be the saviour of his country, and the conqueror of that inveterate foe, who, during a long succession of years, had turned the whole force of his gigantic power to effect the ruin of England, but who, in his last attempt once more "to wade through slaughter to a throne," was destined to meet his final overthrow on that field

from which he escaped with life, but with the loss of honour.

Cuirassier (pronounce *owceerasseer*).—A soldier armed with a cuirass or breastplate. *Fr.* cuir, leather.

Pertinacity.—Persistence, a resolute holding on; e. g. He stuck to his plan with great pertinacity.

Juncture.—A crisis, a time when important circumstances concur or join. *Lat.* jungo, to join.

Intrepid.—Fearless.

Inveterate.—Old, of long standing. *Lat.* vetus, old.

LESSON LVII.

SEVEN MILES UP IN THE AIR.

On the fifth day of September, 1862, two English aeronauts, Glaisher and Coxwell by name, made one of the most remarkable ascents recorded in the history of ballooning. They started from Wolverhampton, England, and the elevation reached was the highest ever attained by man—nearly or quite seven miles above the earth. Last summer, three scientific Frenchmen rose to nearly as great a height, but only one returned alive; the other two were suffocated in the thin air so far above the clouds.

Messrs. Glaisher and Coxwell were more fortunate, but their escape was a narrow one. Mr. Glaisher had already lost his senses, and Mr. Coxwell the use of his hands, when the upward course of the balloon was stayed by Mr. Coxwell, who succeeded in grasping the valve-rope with his teeth, and by ducking his head was able to open the safety-valve and allow some of the gas to escape.

Mr. Glaisher has given a modest yet thrilling account

of this almost fatal adventure. The balloon left the earth at three minutes past one P.M. Nothing important occurred until the party, at forty minutes past one, reached the altitude of four miles from the earth. Discharging sand, they rose to the height of five miles during the next ten minutes. Up to this time Mr. Glaisher had taken observations with comfort, though Mr. Coxwell, having more to do, found some difficulty in breathing. More sand was discharged, and the balloon shot rapidly upward. Soon Mr. Glaisher's sight failed, and he could not read the fine divisions on his instrument. All the time the balloon had been spinning round and round, and the valve-line had become so entangled that Mr. Coxwell had to climb into the ring above the car to adjust it.

At this moment (one o'clock and fifty-four minutes), Mr. Glaisher looked at the barometer, and found its reading to be $9\frac{3}{4}$ inches, implying a height of over 29,000 feet. Wishing to record the observation, he found his right arm powerless. He tried to move the other arm, and found it powerless too.

"Then I tried to shake myself, and succeeded, but I seemed to have no limbs. On looking at the barometer, my head fell over my left shoulder; I struggled and shook my body again, but could not move my arms. Getting my head upright for an instant only, it fell on my right shoulder; then I fell backward, my back resting upon the side of the car and my head on its edge. In this position my eyes were directed to Mr. Coxwell in the ring. When I shook my body I seemed to have full power over the muscles of the back, and considerably so over those of the neck, but none over either my arms or my legs. As in the case of the arms, so all muscular power was lost in an instant from my back

and neck. I dimly saw Mr. Coxwell, and endeavoured to speak, but could not. In an instant intense darkness overcame me, but I was still conscious, with as active a brain as at the present moment whilst writing this. I thought I had been seized with asphyxia, and believed I should experience nothing more, as death would come unless we descended speedily; other thoughts were entering my mind, when I suddenly became unconscious, as on going to sleep."

Meanwhile, Mr. Coxwell was in quite as critical a condition. Hoar-frost was all around the neck of the balloon, and the ring was piercingly cold. He attempted to leave the ring, and found that his hands were frozen. He dropped to the car almost insensible, and discovered that his companion was apparently dead. He tried to go to him, but could not. He wished to open the valve, but his hands were frozen and his arms powerless. Feeling insensibility coming rapidly over him, he made a desperate effort, caught the valve-line with his teeth, and held the valve open until the balloon took a decided downward turn.

In a few minutes Mr. Glaisher began to revive, and soon became conscious that Mr. Coxwell was trying to rouse him.

"I then heard him speak more emphatically, but could not see, speak, or move. I heard him again say: 'Do try; now do.' Then the instruments became dimly visible; then Mr. Coxwell, and very shortly I saw clearly. Next I arose from my seat, and looked around as though waking from sleep, though not refreshed, and said to Mr. Coxwell, 'I have been insensible.' He said, 'You have, and I too, very nearly.' I then drew up my legs, which had been extended, and took a pencil in my hand to begin observations. Mr. Coxwell told me

that he had lost the use of his hands, which were black, and I poured brandy over them."

What if Mr. Coxwell had lost the use of his neck also!

It has been said that during the critical moments when Mr. Glaisher was unconscious, and Mr. Coxwell nearly so, the balloon reached the fearful height of seven miles; and some of our young readers may wonder how two half-dead men could tell that.

As you have already been informed, the barometer, when Mr. Glaisher's last observation was made, showed that the balloon was 29,000 feet, or about five miles and a half, above the earth. The observations he had been making from minute to minute showed how fast the balloon was rising when he lost his senses. His first act on recovering was to look at the chronometer and barometer before him. The one showed that he had lost several minutes, the other that the balloon was falling. In a minute or two he was able to tell how fast they were falling. From these data he was able to calculate closely how long the balloon must have continued to rise before Mr. Coxwell was able to arrest its upward course, and from that he could estimate the probable height it had reached.

But this was not their only means of telling how high they had gone. Mr. Glaisher had before him, a very sensitive spirit thermometer, so made as to leave a mark at the lowest point the spirit reached in the tube. The observations made during the ascent had told him just how rapidly the temperature fell that day as the balloon rose: you know that the air grows cold very rapidly as one ascends. Now the thermometer recorded nearly twelve degrees below zero as the coldest temperature experienced; this, at the rate of decline observed

—so many degrees for each thousand feet of ascent—indicated an elevation corresponding to that obtained by calculation, that is, about 37,000 feet.

Again, when Mr. Coxwell dropped from the ring into the car, he noticed that the hand of the aneroid barometer they carried stood at 7, indicating an air pressure of only seven inches, which corresponds to a height of 37,000 feet. The agreement of these three different methods of estimating the height of the balloon is so close that there can be little doubt of their united testimony.

What has air pressure to do with the height of a balloon?

Everything. It wouldn't go up at all if the air did not press it upward. Besides, by measuring the pressure at any point by means of a barometer, one is able to tell how much of the atmosphere is below him—in other words, how high he is above the earth.

That the air does press upward, as well as in every other direction, can be easily proved. This is one way. Fill a goblet to the level with water, and cover it nicely with a piece of writing-paper, rubbing the rim of the goblet well to make a snug joint. This done, turn the goblet upside down. The pressure of the air against the paper will hold the water up, and if the experiment be dexterously made, not a drop will fall out. If the goblet were thirty feet high, the water would be supported just the same; in other words, the upward pressure of the air will support a column of water thirty feet high and a little more, *at the level of the sea*. As one rises above the sea the pressure is less, because less of the air is left above. By rising three miles and three-quarters, half the atmosphere is passed, and the air pressure is then sufficient to support only about fifteen feet of

water ; or, as mercury is about twelve times as heavy as water, about fifteen inches of mercury, as in a common barometer. At a height of between five and six miles, the barometer reading is only ten inches ; at twenty miles it would be less than one inch, the height of the recording column of mercury decreasing very rapidly with the elevation.

Thus the barometric readings tell the mountain climber or the aeronaut very nearly his exact height above the sea, at any moment. Combined with other observations familiar to men of science, the height can be told with great precision.

I can hear many of you asking : What made Mr. Glaisher lose his senses ? And why were the unlucky Frenchmen suffocated ?

Two very great evils are encountered on ascending to great heights above the earth, both due, directly or indirectly, to the diminishing pressure of the air. Our lungs are used to working under a pressure of about fifteen pounds to the square inch, and to air of corresponding density. Every time the lungs are filled in ordinary breathing, a quantity of air of this density is brought to act on the blood in them, purifying it so as to make it fit to sustain life. But when the aeronaut has risen, say to a height of four miles, the atmosphere is less than half as dense as the air he is used to breathing ; its pressure upon the body and the lungs is only half as great as that which by use they are fitted to withstand ; and the machinery of breathing and the circulation of the blood are more or less disturbed in consequence. At the height of five or six miles this disturbance may seriously interfere with health and comfort. Besides, the air is so very much thinner up there, that when the lungs are filled with it a

much smaller quantity of air than usual is brought to bear on the blood. The blood is consequently less, completely purified; its colour darkens; the impurities retained in it act like poison; and in a little while, unless a descent is made into a denser atmosphere, the victim may be suffocated past recovery, as the two Frenchmen were who lost their lives in a balloon ascent last summer.

One of the pigeons taken up with Messrs. Glaisher and Coxwell died from this cause, and another lost its senses, but recovered. There were six in the cage when they started. One was thrown out at the height of three miles, going up; it spread its wings, and dropped like a piece of paper. The second was thrown out at the height of four miles; it flew vigorously, but the air was too thin to sustain it. The third, thrown out between four and five miles up, fell downward like a stone. The fourth was thrown out at four miles, coming down, and took refuge on the top of the balloon. The fifth, as already noticed, was dead; and the sixth was so stupid that it could not fly for some time after reaching the ground. 'St. Nicholas' for 1876.

Aeronaut.—A person who makes balloon ascents. *Gr.* aer, air; nautes, a sailor.

Altitude.—Height. *Lat.* altus, high.

Asphyxia.—Cessation of the action of the heart. *Gr.* a, without; sphuxis, pulse.

Data.—Literally things given; the facts from which an inference is drawn: e. g. I had no data before me, and so could not pronounce an opinion.

Dense.—Close, compact.

LESSON LVIII.

HISTORY IN WORDS.

HAVING dedicated this lecture to the history which is in words, I can have no fitter opportunity of urging upon you the importance of seeking in every case to acquaint yourselves with the circumstances under which any body of men who have played an important part in history, especially in the history of your own land, obtained the name by which they were afterwards willing to be known, or which was used for their designation by others. This you may do as a matter of historical inquiry, and keeping entirely aloof in spirit from the scorn, the bitterness, the falsehood, the calumny out of which very often this name was first imposed. Whatever of evil may have been at work in them that coined, or gave currency to the name, the name itself can never, without serious loss, be neglected by those who would truly understand the moral significance of the thing; there is always something, often very much, to be learned from it. Learn, then, in regard of each one of these names which you may meet in your studies, whether it was one which men gave to themselves, or one imposed on them by others, and which they never recognized; or one which, being first imposed by others, was yet in course of time admitted and accepted by themselves. We have examples in all these kinds. Thus the "Gnostics" called *themselves* such; the name was of their own devising, and one in which they boasted. In like manner, the "Cavaliers" of our civil war. "Quaker," "Puritan," "Roundhead," were all, on the contrary, names devised by others,

and never accepted by those to whom they were attached; while "Whig" and "Tory" were nicknames originally of bitterest scorn and party hate, given by two political bodies in England to one another, which, however, in course of years lost what was offensive in them, until they came to be accepted and employed by the very parties themselves. The German "Lutherans" were first so called by their antagonists. The same we may say of "Methodists"; this name was certainly not first taken by the followers of Wesley, but imposed on them by others, while yet they have been subsequently willing to accept and to be known by it. "Capuchin" was, in like manner, a jesting name, first given by the boys in the streets to that branch of the Franciscans which afterwards accepted it as their proper designation. It was provoked by the peaked and pointed hood (*capucho*) which they wore.

Now of these titles, and of many more that might be adduced, some undoubtedly, like the last, had their rise in mere external accident, and stand in no essential connection with those that bear them; and these names, though seldom without their instruction, yet plainly are not so instructive as others, in which the innermost heart of a system speaks out and reveals itself; so that, having mastered the name, we have placed ourselves at the central point from which we shall best master everything besides. Thus, for instance, is it with "Gnostic" and "Gnosticism"; in the prominence given to *gnosis*, or knowledge, as opposed to faith, lies the key to the whole system. And I may say generally, that almost all the sects and parties, religious and political, which have risen up in times past in England, are known by names that will

repay study — by names, to understand which will bring us far to an understanding of their strength and their weakness, their truth and their error, the idea and intention according to which they wrought. "Puritans," "Fifth-Monarchy Men," "Seekers," "Levellers," "Independents," "Friends," "Rationalists," "Latitudinarians," "Freethinkers"; these titles, with many more, have each their significance; and would you understand what the men themselves meant, you must first understand what they were called. From this must be your point of starting; even as you must bring back to this whatever further information you may gain; and though I will not say that you must always subordinate it to the name, yet you must ever put it in relation and connection with that.

You will often be able to glean knowledge from the names of things, if not as important as that I have just been speaking of, yet curious and interesting. What a record of inventions is preserved in the names which so many articles bear, of the place from which they first came, or the person by whom they were first invented! The "magnet" has its name from Magnesia; the "baldachin" from "Baldacco," the Italian name of Bagdad, it being from that city that the costly silk which composed this canopy originally came. The "bayonet" tells us that it was first made at Bayonne; "worsted," that it was first spun at a village so called, in the neighbourhood of Norwich; "sarsnet," that it is a Saracen manufacture; "cambric," that it reached us from Cambray; "crape," from Cyprus (the earlier form of the word is "cypres"); "copper," also, that it drew its name from this same island, so richly furnished with mines of this metal; "diaper," that it came from Ypres; "damask," from Damascus; the damson is also

the "damascene," or Damascus plum; "arras," from Arras; "dimity," from Damietta; "cordwain" or "cordovan," from Cordova; "currants," from Corinth; "delf," from Delft; "indigo" (indicum), from India; "agates," from a Sicilian river, Achates; "jalap," from Xalapa, a town in Mexico; "jane," from Genoa; "parchment," from Pergamum; the "bezant," so often named in our early literature, from Byzantium, being a Byzantine coin; the "guinea," that it was originally coined (in 1663) of gold brought from the African coast so called; "camlet," that it was woven, at least in part, of camel's hair. The fashion of the cravat was borrowed from the Croats, or "Crabats," as they used in the seventeenth century to be called. The "biggen," a plain cap often mentioned by our early writers, was first worn by the Beguines, communities of pietist women in the middle ages, and had its name from them. Such has been the manufacturing progress of England, that we now send our calicoes and muslins to India and the East; yet the words give standing witness that we once imported them from thence, for "calico" is from Calicut, and "muslin" from Moussul, a city in Asiatic Turkey. "Ermine" is the spoil of the Armenian rat; "sherry," or "sherria," as Shakespeare wrote it, is sent us from Xeres, and "port," from Oporto; the "pheasant" came to us from the banks of the Phasis; the "cherry" was brought by Lucullus from Cerasus, a city in Pontus; the "peach" declares itself by its name to be a Persian fruit; "spaniels" are from Spain.

It is true, indeed, that occasionally a name will embody and give permanence to an error; as when, in "America," the honour of discovering the New World, which belonged to Columbus, has been transferred to

another eminent discoverer, but one who had no title to this praise, and, as Humboldt has lately abundantly shown, was entirely guiltless of any attempt to usurp it for himself. So, too, the "turkey" in our farmyards seems to claim Turkey for its home, and the assumption that it was from thence no doubt caused it to be so called; while, indeed, it was unknown in Europe until introduced from the New World, where alone it is indigenous. In like manner, "gypsies" appears to imply that Egypt was the country to which these wanderers originally belonged, and from which they had migrated westward; and certainly it was so believed in many parts of Europe at their first appearance in the beginning of the fifteenth century, and hence this title. It is now, however, clearly made out, their language leaving no doubt of the fact, that they are an outcast tribe which has wandered hither from a more distant land—from India itself. "Bohemians," the French appellation of gypsies, involves an error similar to ours; they were taken at first by the common people in France to be the expelled Hussites of Bohemia, and hence this name.

And where words have not, as in these cases, embodied an error, it will yet sometimes happen that the sound or spelling of a word will to us possibly suggest a wrong explanation, against which in these studies we shall need to be on our guard. I dare say that there has been a stage in most boys' geographical knowledge when they have taken it for granted that Jutland was so called, not because it was the land of the Jutes, but on account of its *jutting* out into the sea in so remarkable a manner. And there have not been wanting those who have ventured to trace in the name "Jove" a heathen reminiscence of the awful name of Jehovah.

I will not enter into this here; sufficient to say that, however specious this at first sight may seem, yet on closer examination of the two words every connection between them disappears.

Sometimes the assumed derivation has reacted upon and modified the spelling. Thus, the name of the Caledonian tribe whom we call the "Picts" would probably have come down to us in a somewhat different form, but for the assumption which early rose up, that they were so called from the custom of staining or painting their bodies—that, in fact, "Picts" meant "the painted." This, as is now acknowledged, is an exceedingly improbable supposition. It would be quite conceivable that the Romans should have given this name to the *first* barbarous tribe they encountered who were in the habit of painting themselves thus. Such a custom, forcing itself on the eye, and impressing itself on the imagination, is exactly that which gives birth to a name. But after they had been long familiar with the tribes in southern Britain, to whom this painting or tattooing was equally familiar, it is quite inconceivable that they should have applied it to one of the northern tribes in the island, with which they first came in contact at a far later day. The name is much more probably the original Celtic one belonging to the tribe, slightly altered in the mouths of the Romans. It may have been the same with "hurricane"; for many have imagined that this word, being used especially to signify the West Indian tornado, must be derived from the tearing up and *hurrying* away of the *canes* in the sugar plantations—just in the same way as the Latin "calamitas" has been drawn, but erroneously, from "calamus," the stalk of the corn. In both cases the etymology is faulty; "hurricane" is

only a transplanting into our tongue of the Spanish "hurricane" or the French "ouragan."

It is a signal evidence of the conservative powers of language, that we oftentimes trace in speech the records of customs and states of society which have now passed so entirely away as to survive nowhere else but in these words alone. For example, a "stipulation," or agreement, is so called, as many tell us, from "stipula," a straw, and with reference to a Roman custom of breaking a straw between them when two persons would make a mutual engagement with one another. And we all know how important a fact of English history is laid up in "curfew," or "couvre-feu." The "limner," or "lumineur" (luminatore), brings us back to a period when the *illumination* of manuscripts was the leading occupation of the painter, so that from this work he derived his name. "Thrall" and "thralldom" descend to us from a period when it was the custom to *thrill*, or drill the ear of a slave in token of servitude, a custom in use among the Jews (Deut. xv. 17), and retained by our Anglo-Saxon forefathers, who were wont thus to pierce at the church-door the ears of their bond-servants. By "lumber" we are, or might be, taught that Lombards were the first pawnbrokers, even as they were the first bankers in England, a "lumber"-room being a "lombard"-room, or room where the pawnbroker stored his pledges. Nor need I do more than remind you that in our common phrase of "*signing* our name," we preserve a record of a time when the first rudiments of education, such as the power of writing, were the portion of so few, that it was not as now the exception, but the custom for most persons to make their mark or "sign," great barons and kings themselves not being ashamed to set this

sign, or cross, to the weightiest documents. We more accurately express what we now do when we speak of "subscribing the name." Then, too, whenever we term arithmetic the science of "calculation," we in fact allude to that rudimental period of the science of numbers when pebbles (*calculi*) were used, as now among savages they often are, to facilitate the practice of counting. "Expend," "expense," tells us that money was once weighed out, and not counted out, as now (*Gen.* xxxiii. 16). In "library," we preserve the fact that books were once written on the bark (*liber*) of trees; as in "paper," of a somewhat later period, when the Egyptian papyrus, "the paper reeds by the brooks," furnished the chief material for writing.

Theories, too, which long since were utterly renounced, have yet left their traces behind them. Thus, the words "good humour," "bad humour," "humours," and, strangest contradiction of all, "*dry* humour," rest altogether on a now exploded but a very old and widely-extended theory of medicine, according to which there were four principal moistures or "humours" in the natural body, on the due proportion and combination of which the disposition alike of body and mind depended. And "temper," as used by us now, has its origin in the same theory: the due admixture or right "tempering" of these gave what was called the happy temper, or mixture, which, thus existing inwardly, manifested itself also outwardly. In the same manner, "distemper," which we still employ in the sense of sickness, was that evil frame either of a man's body or of his mind (for it was used alike of both), which had its rise in an unsuitable mingling of these humours. In these instances, as in many more, the great streams of thought and feeling have changed their course, and

now flow in quite other channels from those which once they filled, but have left these words as lasting memorials of the channels in which once they ran.

Trench's 'Study of Words.'

Calumny.—Evil speaking.

Currency.—Circulation. *Lat. curro*, to run.

Gnostics.—A sect who prided themselves on their superior knowledge. *Gr. gnosis*, knowledge.

Adduce.—To bring forward, to cite. *Lat. duco*, lead.

Fifth-Monarchy Men.—A fanatical party of the time of the Commonwealth, who considered Cromwell as the introducer of the fifth great monarchy of the world, during which Christ should reign for 1000 years.

Seekers.—A sect who held no definite creed, but professed to be ever seeking the truth.

Rationalists.—Persons who profess to reject all teaching which their reason does not approve. *Lat. ratio*, reason.

Latitudinarians.—Persons who indulge in undue latitude of thinking in matters of religion. *Lat. latitudo*, breadth.

Subordinate.—To place one thing below another in order of importance.

Baldachin.—A rich canopy carried over the host in the Romish Church.

Cordwainer.—A shoemaker, originally a worker in Cordovan leather. *Fr. cordonnier*.

Byzantium.—The ancient name of Constantinople.

Pietist.—Devoted to a life of piety.

Reminiscence.—Recollection.

Calamity.—Loss, misfortune.

LESSON LIX.

THE DEFENCE OF JELLALABAD.

(1842.)

ALTHOUGH left to their own resources, the garrison of Jellalabad found, in their own indomitable fortitude and perseverance, and the courage and capacity of their

leaders, means of defence which, in the circumstances, would otherwise have seemed unattainable. When Sale first found himself reduced to his own forces after the Cabul disaster, he had just 2500 men, of whom, in the middle of February, only 2273 were effective; of these, 838 were Sepoys. The place, though nominally a fortress, had in reality very little means of defence. The ramparts were on all sides in a ruinous state, in some actually fallen down; yawning breaches, in many places, would admit a company of foot-soldiers abreast; the ditch, in others, was so filled up that a half troop might trot in line. With indefatigable vigour and perseverance, Sale, aided by his gifted engineer, Broadfoot, set himself to work, the moment he got possession in November, to repair the fortifications; and with such success were his exertions attended, that before the end of January the breaches and ruined places in the walls were all repaired, a ditch, ten feet deep and fourteen broad, everywhere cleared out round the works, and the whole of the buildings within point-blank range of the works levelled. They were thus secure from a sudden surprise, or siege operations from any Asiatic army without cannon; but this afforded no safeguard against the approaches of famine, which were seriously to be apprehended, as, on the 19th February, they had only provisions for the men for seventy, for the horses for twenty-five days. Forage and food in abundance were to be had in the neighbouring villages, but they were of no use to the besieged, as they had neither money to buy them, nor cavalry to forage in presence of Akbar Khan, who, with a large body of horse, lay within a few miles distant. The garrison, however, were in good heart, and confidently looked forward to being delivered by Pollock; and

their courage received an additional stimulus by the heroic conduct of Lady Sale, who before being made prisoner by the Afghans, wrote to her husband to allow no consideration of her danger to interfere with his performing his duty, and defending the place to the last extremity. But, at the very time when this brave garrison were with reason congratulating themselves on the security which their indefatigable efforts had gained for them, a terrible calamity ensued. On the 19th February, at the very moment that Sale and M'Gregor were writing to Pollock, urging his early advance to their relief, an earthquake of fearful severity was felt at Jellalabad. The shocks were so violent that the ramparts suddenly yawned, and in many places were thrown down, and great part of the buildings in the town fell with a fearful crash. In the first moments of alarm, the garrison instinctively ran to arms, thinking that a mine had been sprung, and that an immediate assault might be expected. Fortunately, most of them from doing so got out of the building safe; but Colonel Monteith, the field-officer of the day, was overwhelmed by the fall of his house, and dug out of the ruins, buried up to the neck in rubbish. No less than a hundred shocks succeeded the first great one, which tended still to extend the devastation, and, while they continued, rendered impossible all attempts to arrest the mischief. Many governors, in the circumstances in which he was now placed, with his fortifications in a great measure ruined, and a superior and victorious enemy in the vicinity, would have deemed the post no longer tenable, and made the best of his way down to Peshawur. Not so Sale, Broadfoot, and their heroic followers. What they did has been recounted in the simple words of the latter. "No time,"

says Captain Broadfoot, "was lost. The shocks had scarcely ceased when the whole garrison was told off in working parties; and before night the breaches were scarp'd, the rubbish below cleared out, and the ditches below them dug out, while the great one on the Peshawur side was surrounded by a new gabion parapet. Another parapet was erected on the remains of the north-west bastion, with embrasures allowing the guns to flank the approach to the ruined gate; while that gate itself was rendered inaccessible by a trench in front of it; and in every bastion round the place a temporary parapet was raised. From the following day all the troops off duty were continually at work; and such was their energy and perseverance, that by the end of the month the parapets were entirely restored, or the curtains filled in where restoration was impracticable, and every battery re-established. The breaches had been built up, with the rampart doubled in thickness, and the whole of the gates re-trenched." The spirits of the garrison after this were much raised by the receipt of Lord Auckland's proclamation, declaring that the misfortune that had occurred afforded only a fresh opportunity for displaying the power and resources of the British empire. They now looked forward confidently to being relieved. It was long, however, before the relief came. Meanwhile, such was the respect with which the garrison of Jellalabad had inspired the blockading force, that though Akbar Khan, with a body of 7000 men, lay in the close vicinity, and more than once actually approached the walls, he never ventured to engage the British who went out to meet him, and the blockade was kept up at a distance only. But still the position of the garrison was extremely precarious, and becoming more so every

day. Provisions were growing very scarce. By the middle of March the men were put on short rations, the draught-cattle, camels, and artillery horses began to be killed, and Sale's applications to Pollock for relief became daily more urgent. Still the terrors and mutinous temper of the Sepoys was such that no advance was practicable till the European troops arrived. At length the numerous obstacles which had opposed their advance were removed. The English dragoons (3rd) and horse artillery reached the camp at Peshawur on the 30th, and next day Pollock gave orders to commence the march towards Jellalabad. The 33rd, however—Wellington's old regiment—which was anxiously expected, did not come up for some days afterwards, and the march did not begin till the 5th April.

On the morning of the 16th, the advanced guard came in sight of Jellalabad. The sight filled the garrison with the most enthusiastic joy: the soldiers thronged the walls; the bands of every regiment went out to meet the conquerors, and struck up "God save the Queen!" as they passed by; and cheers which made the very welkin ring resounded through the air, as in proud array and with erect heads they entered the gates of the fortress. If the garrison of Jellalabad had good cause to welcome the conquerors of the Khyber with these military honours, they in their turn had as good reason to salute the garrison with equal distinction, for never had a defence been conducted with more fortitude and constancy. Great as were the efforts made by Pollock to disengage them, the aid would have come too late had it not been for their own indomitable spirit and resolution. On the 1st April, when almost at the last extremity for provisions, they made a sortie, and carried off, in the very teeth of the

enemy's covering parties, five hundred sheep and goats. This supply was of inestimable importance, for it gave them the means of subsistence till the probable period of their relief. Some days after, reports were spread by the blockading force of a great disaster sustained by Pollock in attempting to force the Khyber Pass; and on the 6th their whole guns fired a royal salute in honour of the supposed victory. In these circumstances, a council of war in the garrison decided that nothing could save them but a sudden irruption, which might drive the enemy to a distance, and enable them to aid Pollock's advance and sweep the country some distance for additional supplies. It was resolved, accordingly, to make a general sally, which was fixed for daybreak on the morning of the 7th. Sale divided his troops into three columns: the centre, consisting of the 13th, five hundred strong, was under the command of Colonel Dennie; the left, of the same strength, composed of Sepoys, was under the orders of Colonel Monteith; and the right, consisting of one company of the 13th and one of the 35th, was led by Captain Havelock, an officer destined to deathless fame. A few guns and horsemen accompanied the sally, which was made by the Cabul and Peshawur gates at daybreak on the morning of the 7th. Akbar Khan had drawn up his troops, six thousand strong, in order of battle to defend his camp—his right resting on a fort, his left on the Cabul river, and some ruined works, within eight hundred yards of the place, being filled with Ghilzye marksmen. The attack was led by Havelock, at the head of the skirmishers of the 13th, who forced their way, in spite of a stout resistance, through the ruined works, and then, pushing on, assailed the main line. Meanwhile, Dennie, while nobly leading the second

column to attack the fort, received a ball in the breast, of which he soon after expired. The assault of the fort, however, went on, and after an obstinate resistance it was carried; while at the same time Monteith forced back the enemy's right. Sale now directed a general assault on the Afghan camp. The artillery advanced at a gallop, and directed a heavy fire on the enemy's centre, while the infantry pressed forward in splendid style to complete their victory. The attacks all proved successful. Two of the columns penetrated the line near the same point; while the third, in spite of a heavy fire from three guns under cover, and repeated charges from the horse, drove the forces opposed to them headlong into the river. By seven in the morning the victory was complete. The enemy was driven off in great disorder towards Luyhman and Cabul, their camp captured, all the tents burnt, the blockade raised, and two cavalry standards taken, with four guns which had been captured from the British during the Cabul retreat. This recovery gave unbounded joy to the troops; but the victory, important as it was, was dearly purchased by the loss of Colonel Dennie, one of the brightest ornaments of the British army.

ALISON.

Indomitable.—Unconquerable. *Lat. domo, to tame.*

Indefatigable.—Incapable of being wearied out.

Stimulus.—Incentive. *Lat. stimulus, a goad for driving cattle.*

Scarp.—To slope suddenly.

Curtain.—That part of the rampart which is between two bastions.

Parapet.—A rampart for protecting soldiers from the enemies' shot, literally a wall *breast high*. *Lat. pectus, breast.*

Gabion.—A kind of bottomless basket filled with earth, and used to shelter soldiers from an enemy's fire.

Bastion.—A huge mass of earth, usually faced with sods, sometimes with brick or stones, standing out from the angles of a fortified work to protect the wall. *Fr. bâtir (Old Fr. bastir) to build.*

Embrasure.—An opening in a wall or parapet through which cannon are discharged.

Precarious.—Uncertain; e. g. His recovery is very precarious.

Welkin.—The sky. *Old Eng.* wolcen, cloud.

Sortie.—A sudden rush-out. *Fr.* sortir, to go out.

LESSON LX.

THE FORGING OF THE ANCHOR.

Come, see the 'Dolphin's' anchor forged; 'tis at a white heat now;
The bellows ceased, the flames decreased; though on the forge's
brow

The little flames still fitfully play through the sable mound;
And fitfully you still may see the grim smiths ranking round,
All clad in leathern panoply, their broad hands only bare:
Some rest upon their sledges here, some work the windlass there.
The windlass strains the tackle chains, the black mound heaves
below,

And red and deep, a hundred veins burst out at every throe;
It rises, roars, rends all outright—O Vulcan, what a glow!
'Tis blinding white, 'tis blasting bright—the high sun shines
not so!

The high sun sees not, on the earth, such fiery, fearful show,
The roof-ribs swarth, the candent hearth, the ruddy lurid row
Of smiths that stand, an ardent band, like men before the foe.
As quivering through his fleece of flame, the sailing monster,
slow

Sinks on the anvil—all about the faces fiery grow.

"Hurrah!" they shout, "leap out—leap out," bang, bang the
sledges go;

Hurrah! the jetted lightnings are hissing high and low;
A hailing fount of fire is struck at every squashing blow,
The leathern mail rebounds the hail, the rattling cinders strow
The ground around; at every bound the sweltering fountains
flow;

And thick and loud the swinking crowd, at every stroke pant
"Ho!"

Leap out, leap out, my masters! leap out and lay on load!
Let's forge a goodly anchor—a bower thick and broad;
For a heart of oak is hanging on every blow I bode,
And I see the good ship riding all in a perilous road;
The low reef roaring on her lee—the roll of ocean pour'd
From stem to stern, sea after sea—the mainmast by the board;
The bulwarks down, the rudder gone, the boats stove at the
chains!

But courage still, brave mariners, the bower yet remains,
And not an inch to flinch he deigns, save when ye pitch sky
high;

Then moves his head, as though he said, "Fear nothing, here
am I!"

Swing in your strokes in order, let foot and hand keep time!
Your blows make music sweeter far than any steeple's chime.
But, while ye swing your sledges, sing; and let the burden be,
"The anchor is the anvil king, and royal craftsmen we."
Strike in, strike in, the sparks begin to dull their rustling red.
Our hammers ring with sharper din, our work will soon be sped.
Our anchor soon must change his bed of fiery rich array,
For a hammock at the roaring bows, or an oozy couch of clay;
Our anchor soon must change the lay of merry craftsmen here,
For the "Yeo-heave-o," and the "Heave-away," and the sighing
seaman's cheer;

When weighing slow, at eve they go, far, far from love and home,
And sobbing sweet-hearts, in a row, wail o'er the ocean foam.

In livid and obdurate glow, he darkens down at last;
A shapely one he is, and strong, as e'er from cat was cast.
O trusted and trustworthy guard, if thou hadst life like me,
What pleasures would thy toils reward beneath the deep green sea!
O deep-sea diver, who might then behold such sights as thou?
The hoary monsters' palaces! methinks what joy 'twere now
To go plumb plunging down amid the assembly of the whales,
And feel the churn'd sea round me boil beneath their scourging
tails!

Then deep in tangle-woods to fight the fierce sea-unicorn,
And send him foil'd and bellowing back, for all his ivory horn;
To leave the subtle sworder-fish, of bony blade forlorn;
And for the ghastly grinning shark, to laugh his jaws to scorn;

To leap down on the kraken's back, where, 'mid Norwegian isles,
 He lies, a lubber anchorage for sudden shallow'd miles;
 Till snorting, like an under-sea volcano, off he rolls,
 Meanwhile to swing, a-buffeting the far-astonish'd shoals
 Of his back-browsing ocean-calves; or haply in a cove,
 Shell-strown, and consecrate of old to some Undine's love,
 To find the long-hair'd mermaidens; or, hard by icy lands,
 To wrestle with the sea-serpent, upon cerulean sands.

O broad-arm'd fisher of the deep, whose sports can equal thine?
 The 'Dolphin' weighs a thousand tons, that tugs thy cable line;
 And night by night, 'tis thy delight, thy glory day by day,
 Through sable sea and breaker white, the giant game to play,
 But, shamer of our little sports! forgive the name I gave,
 A fisher's joy is to destroy—thine office is to save.

O lodger in the sea-king's halls, couldst thou but understand
 Whose be the white bones by thy side, or who that dripping
 band,

Slow swaying in the heaving wave, that round about thee bend,
 With sounds like breakers in a dream, blessing their ancient
 friend—

Oh, couldst thou know what heroes glide with larger steps round
 thee,

Thine iron side would swell with pride, thou'dst leap within the
 sea!

Give honour to their memories who left the pleasant strand,
 To shed their blood so freely for the love of fatherland—
 Who left their chance of quiet age and grassy churchyard grave
 So freely, for a restless bed amid the tossing wave—
 Oh, though our anchor may not be all I have fondly sung,
 Honour him for their memory whose bones he goes among!

SAMUEL FERGUSON.

Panoply.—Armour. Properly, a complete armour or defence.
Gr. pan, all; *hopla*, arms.

Vulcan.—The god of fire and furnaces.

Swarth.—Dark, black. Compare *swarthy*. *Ger. Schwarz*.

Candent.—Shining white. *-Lat. candeo*, to shine.

Lurid.—Ghastly pale. *Lat. luridus*, pale yellow.

Swelter.—To oppress with heat.

Swink.—To labour. *Old Eng.* *swincan*, to toil, drudge.

By the board.—Broken off and thrown over the side of the ship.

Fr. *bord*, border, edge, side.

Bower.—An anchor carried at the bow of a ship.

Livid.—Of a leaden colour. *Lat.* *liveo*, to be black and blue.

Obdurate.—Hardened. Here, looking like heated iron when cooling down to hardness.

Cat.—The tackle for drawing up an anchor perpendicularly to the cat-head, a strong beam projecting over a ship's bows.

Forlorn.—Here, deprived. Properly, lost, abandoned.

Kraken.—An imaginary sea-monster.

Lubber.—Huge. A lubber is a big, sluggish, clumsy fellow.

Undine.—(Pronounce Oon-déna), the name of a water-nymph, the heroine of a beautiful German story.

Cerulean.—Blue.

LESSON LXI.

DIVERS.

It is yet a mystery to you how the wreckers do their work—how they raise a ship that has sunk with a hole in her bottom. Presently you shall learn, and for this purpose let us suppose at this moment that we are sitting in the office of the Coast Wrecking Company in New York. The walls are covered with pictures of ships that have been lost and saved. In a case yonder we see trophies from a hundred different wrecks,—bits of wood from the hulls of famous ships, coils of old rope, savage weapons from cannibal islands, stuffed reptiles from Florida swamps, and many other things which all old sailors are fond of preserving. Tilting themselves in chairs, smoking and spinning yarns, are some of the master-wreckers, who could, if they would, tell you

stories of perils by sea and land that would surpass Captain Marryat's best. But they are a silent, almost sullen set of fellows in the presence of outsiders, and our questions are met by the briefest possible answers. While we are waiting and examining the many curious objects in the room, a messenger enters with the intelligence that during the past night a valuable clipper went ashore on the Long Island coast. Following him, a second messenger enters with letters from the owners of the vessel, ordering the company to the wreck. An hour later we are on our way to the stronghold of the wreckers on Staten Island, and there we are allowed a place in the store-house to watch the preparations of the expedition. A very powerful tug-boat is already under steam, and a gang of workmen are loading her with ponderous machines, which the wreckers modestly call "tools." Length after length of iron cable, each link measuring two and a half inches in thickness, is dragged on board and coiled in the bows. Great steam-pumps are wheeled out of the store-house and deposited on the after-deck, and when other apparatus in covered boxes has been taken on board, the tug rapidly steams out into the stream. A line is paid out astern, and several large oblong boxes—that is what they look like—are taken in tow. These queer, ungainly objects are called "pontoons," and useless as they appear, without them a vessel could not be raised.

We steam quietly down along the coast for nearly two hours, until we reach the wreck, which is indicated by the tops of three masts tapering a few feet above the surface. It is not certain yet that the vessel can be saved, and before work is begun a survey of her bottom must be made by the divers. We have noticed a stalwart fellow on the tug, who has a courageous face

and a thickset frame. He is one of the divers, who of all seamen have the strangest experiences. They go deep beneath the sea, separated only by a thread from death. Watch this man as he dons his submarine armour and prepares to descend into the water. Over a suit of thick flannels he puts a pair of trousers and a jacket made from indiarubber cloth. These fit close to the ankles, wrist, and across the chest. Next he thrusts his head through a copper breast-plate provided with grooves, into which the body of the jacket is fitted and screwed down by an attendant. The head is now covered by a helmet, with a glass face, which is also screwed to the breast-plate,—helmet and breast-plate weighing together about fifty-six pounds. Twenty-eight pounds more are added to this burthen by a pair of shoes with leaden soles, and thus equipped the diver resembles neither man nor fish. A near-sighted naturalist might puzzle over him for hours, without finding out to what species he belongs, so monstrous does he appear. And it is not surprising that the sharks themselves are afraid of the divers, and flee incontinently if one of their arms be outstretched.

The extreme weight of the diver is fatiguing above water, and he is glad to embark in the surf-boat, which has been launched from the tug to convey him nearer the wreck than she dare approach. A few strokes of the oar bring the surveying party directly over the sunken vessel, and the final preparations for the descent are made. You and I watch breathlessly, but the diver thinks very little about the danger of what he is to do. One end of a coil of strong rubber tubing is fastened to a mouth-piece at the back of the helmet, and the other end is connected with an air-pump in the boat. A hempen line is also secured to the outside of

the helmet, and passes down the diver's right side, within easy reach of his hand. Upon this tubing and line his life will depend. Four blocks of lead, weighing fifty pounds, are now slung over his shoulders; and a waterproof bag containing a hammer, chisel, and a dirk-knife, is fastened over his breast. A short iron ladder is lowered over the starboard side of the boat, and the diver heavily climbs down each round. His weight causes the boat to dance and rock unsteadily. It is a very exciting moment for a novice, I can tell you! His comrades watch his movements attentively, and in another moment he is standing on the bottom round of the ladder. Two men stand by the handles of the air-pump at the other end of the boat. All is ready. The diver grasps a rope, to prevent a too rapid descent; he releases the ladder, and the green water swells over and hides him.

Full fathom five he sinks; and as the sea closes about him, the great weight of his armour dwindles away and his movements are as free as an athlete's. Smoothly he descends, and soon feels his feet touching the hard sand. His foothold is unsteady; for notwithstanding the weights attached to him, he is still too buoyant, and once or twice he pulls the signal-line for less air. Well he knows that, unless the supply be rightly adjusted, he will either be suffocated or sent bubbling to the surface feet first.

But his signals are heeded, and as his tread becomes firm, he glances around him out of the little window in his helmet. Shoals of fish crowd inquisitively near, and some daringly rub their noses against his breast; but a wave of his hand drives them off in utmost terror. A few yards away lies the wreck, bedded in the sand, and plainly visible in the green light of the depths.

There is as much light, indeed, as we have on shore during ordinary foggy weather. The diver approaches cautiously. His greatest peril is in the tangled rigging and splinters, which might twist or break the air-pipe and signal-line. He does not move a step without first finding out whither it will lead him, and in good time he safely reaches the hull. Thus far he is pleased with the "job"; the water is clear, and his feet do not sink into the sand. Now he begins his search for the damages, and works for four or five hours without interruption, examining the vessel in every part, and humming a lively tune as he moves briskly about. The water is cold, and if he loiters he will be chilled; and, moreover, he understands that industry is the best cure for the loneliness of his position. At last, he signals to ascend, and he is brought on board the tug-boat. The master-wreckers crowd about him for information.

"Can the vessel be saved?" "She can," he answers. The planking amidships, a few feet above the keel, has been torn away; but she holds together, and if the weather is fair she may be afloat again in two weeks. The diver having removed his dress, then calmly sits down to eat, while preparations are making for another descent.

Two other men accompany him in his next descent, and after they had been down for an hour or two they signal to the men in the boat, and the heavy cable that we have seen is lowered to them. In their curious dress, they work together with a will, and drag the massive links of iron underneath the hull of the ship,—one length amidships, a second length astern, and a third length forward. This is slow work, and before it is complete night has set in, and the divers are brought to the surface. Betimes next day it is

resumed, and when the centre of each great chain is right under the keel, the pontoons are towed over the wreck. Meanwhile, constant communication is established between the men below and the men in the boats, by means of the signal-line. Once in about four hours the divers come to the surface for fresh air and food. But these pontoons—what are they? Let us pause a moment to glance at them. They are built of wood, and painted black. The largest measure 120 feet in length, 18 feet in width, and 14 feet in depth. Those selected for the present case are much smaller, and three are stationed at each side of the wreck to buoy her. In each pontoon there are several wells, or holes, running through the centre, from deck to bottom. Into these the divers insert the ends of the three cables, which are drawn upward by hydraulic power. This part of the work costs severe effort and much time, and when it is done the injured vessel, as a doctor would say, is in a fair way to recovery. The cables are drawn up through the wells, link by link, and are tightened gradually, until the wreck lifts. She rises slowly, and the pontoons groan from the weight bearing upon them as they are drawn nearer to her. For some time yet she is out of sight; but, at last, her deck is seen dimly through the waves, and soon afterwards it is above water. The wreckers, as we observed, are impassive in their manner; but they cannot repress their enthusiasm over the success, and two or three of the more excitable burst into cheers.

Thus the vessel is raised, and you see how invaluable the unsightly pontoons are. Attempts have been made to improve them, but without success, as in the instance of the gutta-percha pontoons, which were tested a few years ago. This invention was so curious that a brief

description may interest you. The pontoons looked like balloons, and were attached by hose to air-tanks. Several of them were sunk and fastened to a submerged vessel by divers. When inflated with air, they brought the wreck to the surface; but being freed from the pressure of the water, they burst and let the vessel sink again.

But we must not forget our wreck. After her decks have been raised above water, several powerful steam-pumps are put on board, and the divers go to work once more. The hatchways have been forced up by the water, and the cargo is seen through them packed close to the decks. Much has to be removed before access can be had to the torn part of the vessel's hull, and many hours are occupied in lifting the heavy bales of merchandise into the schooners and tug-boats around. Moving about the hold, the divers are in constant peril, owing to the liability of the air-pipe to be caught in the many obstructions, and they are more cautious now than before. When they reach the wounded part, they brace the hull surrounding it with iron stanchions, and their next duty is to patch the rent. This is done from the outside. The hole is first covered with a sheet of heavy canvas, and then with thin planking, which is nailed down by the divers. You ask how they can use tools under the water, and in answer to your question, they simply tell you that it is done as easily under water as above. Had the vessel been iron instead of wood, the planking would have been useless, and iron plates would have been screwed down in place of it,—a more difficult operation.

As soon as the damaged places are well covered, however, the steam-pumps on deck are started, and each throws out about sixty hogsheads of water a

minute, until the hold is empty. Two strong steamers make their appearance, and take the vessel, pontoons and all, in tow for New York. She is saved! Again we see her in the Dry Docks, where a hundred swarthy workmen are repairing her; and again as she leaves her wharf, outward bound, three months later, brave and beautiful as ever. The wreckers have done their duty well, and when we hear of their reward, we all agree that they deserve it. *'St. Nicholas' for 1874.*

Pontoon.—A flat-bottomed boat, used in forming bridges for military operations. *Lat. pons*, a bridge. Here, a barge furnished with cranes, capstans, &c., for lifting ships.

Incontinently.—Immediately.

Athlete.—One who contended for the prize in the public games. Now applied to any person possessed of great bodily strength and skill in bodily exercises.

Betimes.—Early.

Hydraulic power.—Water power. *Gr. hudor*, water.

Impassive.—Having feelings not easily moved.

Stanchion.—A prop or support.

LESSON LXII.

OMENS.

Poet. I hope we shall have another good day to-morrow, for the clouds are red in the west.

Doctor. I have no doubt of it, for the red has a tint of purple.

Fisher. Do you know why this tint portends fine weather?

Doct. The air, when dry, I believe, refracts more red, or heat-making rays; and as dry air is not perfectly transparent, they are again reflected in the horizon. I have observed, generally, a coppery or yellow

sunset to foretell rain ; but, as an indication of wet weather approaching, nothing is more certain than a halo round the moon, which is produced by the precipitated water ; and the larger the circle, the nearer the clouds, and, consequently, the more ready to fall.

Fisher. I have often observed that the old proverb is correct—

A rainbow in the morning is the shepherd's warning,
A rainbow at night is the shepherd's delight.

Can you explain this omen ?

Doct. A rainbow can only occur when the clouds containing or depositing the rain are opposite to the sun,—and in the evening the rainbow is in the east, and in the morning in the west ; and as our heavy rains, in this climate, are usually brought by the westerly wind, a rainbow in the west indicates that the bad weather is on the road, by the wind, to us ; whereas, the rainbow in the east proves that the rain in these clouds is passing from us.

Poet. I have often observed that when the swallows fly high, fine weather is to be expected or continued ; but when they fly low, and close to the ground, rain is almost surely approaching. Can you account for this ?

Fisher. Swallows follow the flies and gnats, and flies and gnats usually delight in warm strata of air ; and as warm air is lighter and usually moister than cold air, when the warm strata of air are higher, there is less chance of moisture being thrown down from them by the mixture with cold air ; but when the warm and moist air is close to the surface, it is almost certain that, as the cold air flows down into it, a deposition of water will take place.

Poet. I have often seen sea-gulls assemble on the land,

and have almost always observed that very stormy and rainy weather was approaching. I conclude that these animals, sensible of a current of air approaching from the ocean, retire to the land to shelter themselves from the storm.

Naturalist. No such thing. The storm is their element; and the little petrel enjoys the heaviest gale, because, living on the smaller sea-insects, he is sure to find his food in the spray of a heavy wave, and you may see him flitting above the edge of the highest surge. I believe that the reason of this migration of sea-gulls, and other sea-birds, to the land, is their security of finding food. They may be observed, at this time, feeding greedily on the earth-worms and larvæ, driven out of the ground by severe floods; and the fish, on which they prey in fine weather, in the sea, leave the surface and go deeper in storms. The search after food, as we agreed on a former occasion, is the principal cause why animals change their places. The different tribes of the wading birds always migrate when rain is about to take place; and I remember once, in Italy, having been long waiting, in the end of March, for the arrival of the double snipe in the Campagna of Rome,—a great flight appeared on the 3rd of April, and the day after heavy rain set in, which greatly interfered with my sport. The vulture upon the same principle, follows armies; and I have no doubt that the augury of the ancients was a good deal founded upon the observation of the instincts of birds. There are many superstitions of the vulgar, owing to the same source. For anglers, in spring, it is always unlucky to see single magpies, but *two* may be always regarded as a favourable omen; and the reason is, that in cold and stormy weather one magpie alone leaves the nest in

search of food, the other remaining sitting upon the eggs, or the young ones; but when two go out together, it is only when the weather is warm and mild, and favourable for fishing.

Poet. The singular connections of causes and effects to which you have just referred, make superstition less to be wondered at, particularly amongst the vulgar; and when two facts, naturally unconnected, have been accidentally coincident, it is not singular that this coincidence should have been observed and registered, and that omens of the most absurd kind should be trusted in. In the west of England, half a century ago, a particular hollow noise on the sea-coast was referred to a spirit or goblin, called Bucca, and was supposed to foretell a shipwreck: the philosopher knows that sound travels much faster than currents in the air; and the sound always foretold the approach of a very heavy storm, which seldom takes place on that wild and rocky coast, surrounded as it is by the Atlantic, without a shipwreck on some part of its extensive shores.

Doct. All the instances of omens you have mentioned are founded on reason; but how can you explain such absurdities as Friday being an unlucky day, the terror of spilling salt, or meeting an old woman? I knew a man, of very high dignity, who was exceedingly moved by these omens, and who never went out shooting without a bittern's claw fastened to his button-hole by a ribbon, which he thought ensured him good luck.

Poet. These, as well as the omens of death-watches, dreams, &c., are for the most part founded upon some accidental coincidence; but spilling of salt, on an uncommon occasion, may, as I have known it, arise from a disposition to apoplexy, shown by an incipient numb-

ness in the hand, and may be a fatal symptom; and persons, dispirited by bad omens, sometimes prepare the way for evil fortune; for confidence in success is a great means of ensuring it. The dream of Brutus, before the field of Philippi, probably produced a species of irresolution and despondency, which was the principal cause of his losing the battle: and I have heard, that the illustrious sportsman to whom you have referred just now, was always observed to shoot ill, because he shot carelessly, after one of his dispiriting omens.

Fisher. I have in life met with a few things which I found it impossible to explain, either by chance coincidences or by natural connections; and I have known minds of a very superior class affected by them,—persons in the habit of reasoning deeply and profoundly.

Doct. In my opinion, profound minds are the most likely to think lightly of the resources of human reason: and it is the pert, superficial thinker who is generally strongest in every kind of unbelief. The deep philosopher sees chains of causes and effects so wonderfully and strangely linked together, that he is usually the last person to decide upon the impossibility of any two series of events being independent of each other: and in science, so many natural miracles, as it were, have been brought to light,—such as the fall of stones from meteors in the atmosphere, the disarming a thunder-cloud by a metallic point, the production of fire from ice by a metal white as silver, and the referring certain laws of motion of the sea to the moon,—that the physical inquirer is seldom disposed to assert, confidently, on any abstruse subjects belonging to the order of natural things, and still less so on those relating to the more mysterious relations of moral events and intellectual natures.

SIR HUMPHRY DAVY.

Precipitate.—To throw down.

Strata.—Layers. *Lat. sterno*, to spread out.

Larvæ.—Insects in the caterpillar or grub state. *Lat. larva*, a mask.

Augury.—The pretended prediction of events by the examination of the entrails of birds, &c. *Lat. avis*, a bird.

Coincident.—Concurring, happening together. *Lat. cado*, to fall.

Incipient.—Beginning. *Lat. incipio*, to begin.

LESSON LXIII.

BATTLE OF BALACLAVA—CAVALRY CHARGE.

(A.D. 1854.)

THE cavalry, who have been pursuing the Turks on the right, are coming up to the ridge beneath us, which conceals our cavalry from view. The heavy brigade in advance is drawn up in two lines. The first line consists of the Scots Greys and of their old companions in glory the Enniskillens: the second, of the 4th Royal Irish, of the 5th Dragoon Guards, and of the 1st Royal Dragoons. The Light Cavalry Brigade is on their left, in two lines also. The silence is oppressive; between the cannon bursts one can hear the champing of bits and the clink of sabres in the valley below. The Russians on their left drew breath for a moment, and then in one grand line dashed at the Highlanders. The ground flies beneath their horses' feet; gathering speed at every stride, they dash on towards that *thin red streak topped with a line of steel*. The Turks fire a volley at eight hundred yards, and run. As the Russians come within six hundred yards, down goes that line of steel in front, and out rings a rolling volley of Minié musketry. The distance is too great; the Russians are not checked, but still sweep onward through the smoke,

with the whole force of horse and man, here and there knocked over by the shot of our batteries above. With breathless suspense every one awaits the bursting of the wave upon the line of Gaelic rock; but ere they come within a hundred and fifty yards, another deadly volley flashes from the levelled rifle, and carries death and terror into the Russians. They wheel about, open files right and left, and fly back faster than they came. "Bravo, Highlanders! well done!" shout the excited spectators. But events thicken. The Highlanders and their splendid front are soon forgotten; men scarcely have a moment to think of this fact, that the 93rd never altered their formation to receive that tide of horsemen. "No," said Sir Colin Campbell, "I did not think it worth while to form them even four deep!" The ordinary British line, two deep, was quite sufficient to repel the attack of these Muscovite cavaliers. Our eyes were, however, turned in a moment on our own cavalry. We saw Brigadier-General Scarlett ride along in front of his massive squadrons. The Russians—evidently picked men—their light blue jackets embroidered with silver lace, were advancing on their left, at an easy gallop, towards the brow of the hill. A forest of lances glistened in their rear, and several squadrons of grey-coated dragoons moved up quickly to support them as they reached the summit. The instant they came in sight, the trumpets of our cavalry gave out the warning blast which told us all that in another moment we should see the shock of battle beneath our very eyes. Lord Raglan, all his staff and escort, and groups of officers, the Zouaves, French generals and officers, and bodies of French infantry on the height, were spectators of the scene, as though they were looking on the stage from the boxes of a

theatre. Nearly every one dismounted and sat down, and not a word was said. The Russians advanced down the hill at a slow canter, which they changed to a trot, and at last nearly halted. Their first line was at least double the length of ours—it was three times as deep. Behind them was a similar line, equally strong and compact. They evidently despised their insignificant-looking enemy; but their time was come. The trumpets rang out again through the valley, and the Greys and Enniskilleners went right at the centre of the Russian cavalry. The space between them was only a few hundred yards; it was scarce enough to let the horses “gather way,” nor had the men quite space sufficient for the full play of their sword arms. The Russian line brings forward each wing as our cavalry advance, and threatens to annihilate them as they pass on. Turning a little to their left so as to meet the Russian right, the Greys rush on with a cheer that thrills to every heart—the wild shout of the Enniskilleners rises through the air at the same instant. As lightning flashes through a cloud, the Greys and Enniskilleners pierced through the dark masses of Russians. The shock was but for a moment. There was a clash of steel and a light play of sword-blades in the air, and then the Greys and the red-coats disappear in the midst of the shaken and quivering columns. In another moment we see them emerging and dashing on with diminished numbers and in broken order against the second line, which is advancing against them as fast as it can, to retrieve the fortune of the charge. It was a terrible moment. “God help them! they are lost!” was the exclamation of more than one man, and the thought of many. With unabated fire, the noble hearts dashed at their enemy. It was a fight of heroes. The

first line of Russians—which had been smashed utterly by our charge, and had fled off at one flank and towards the centre—were coming back to swallow up our handful of men. By sheer steel and sheer courage, Ennis-killener and Scot were winning their desperate way right through the enemy's squadrons, and already grey horses and red coats had appeared right at the rear of the second mass, when, with irresistible force, like a bolt from a bow, the 1st Royals, the 4th Dragoon Guards, and the 5th Dragoon Guards rushed at the remnants of the first line of the enemy, went through it as though it were made of pasteboard, and dashing on the second body of Russians, as they were still disordered by the terrible assault of the Greys and their companions, put them to utter rout.

W. H. RUSSELL.

Muscovite.—Russian.

Gather way.—Acquire momentum, get up full speed. A ship is said to be "under way" when she begins to move; she is also said to "make" or "lose way."

LESSON LXIV.

THE DEATH RIDE:

A TALE OF THE LIGHT BRIGADE.

"WE sat mute on our chargers, a handful of men,
As the foe's broken columns swept on to the glen,
Like torn trees when the whirlwind comes:
Cloven helm and rent banner grew dim to our ken,
And faint was the throb of their drums.

"But, no longer pursued, where the gorge opens deep
They halt; with their guns they crowd level and steep:
Seems each volley some monster's breath,
Who shows cannon for teeth as he crouches to leap
From his ambushed cavern of death.

" Their foot throng the defile, they surge on the bank ;
Darts a forest of lances in front ; o'er each flank
Peer the muskets—a grisly flock :
They have built their live tower, rank upon rank,
And wait, fixed, for an army's shock.

" Far in front of our lines, a dot on the plain,
Mute and moveless we sat till his foam-flecked rein
At our side gallant Nolan drew.

' They still hold our guns, we must have them again,'
Was his message—' Advance, pursue ! '

" Pursue them !—What, charge with our hundreds the foe
Whose massed thousands await us in order below !
Yes, such were his words. To debate
The command was not ours ; we had but to know
And, knowing, encounter our fate.

" We ride our last march—let each crest be borne high !
We raise our last cheer—let it startle the sky
And the land with one brave farewell ;
For soon never more to our voice shall reply
Rock, hollow, fringed river, or dell.

" Let our trump ring its loudest ; in closest array,
Hoof for hoof, let us ride ; for the chief who to-day
Reviews us—is Death the Victorious :
Let him look up to Fame, as we perish, and say,
' Enrol them—the fall'n are the glorious ! '

" We spur to the gorge ; from its channel of ire
Livid light bursts like surf, its spray leaps in fire ;
As the spars of some vessel staunch,
Bold hearts crack and fall ; we nor swerve nor retire,
But in the mid-tempest we launch.

" We cleave the smoke-billows, as wild waves the prow ;
The flash of our sabres gleams straight like the glow
Which a ploughing keel doth break
From the grim seas around, with light on her bow,
And light in her surging wake.

"We dash full on their guns—through the flare and the roar
Stood the gunners bare-armed ; now they stand there no more ;
The war-throat waits dumb for the ball :
For those men pale and mazed to the chine we shore,
And their own cannon's smoke was their pall.

"That done, we're at bay ; for the foe, with a yell,
Piles his legions around us. Their bayonets swell
Line on line ; we are planted in steel :
'Good carbine ! trusty blade ! Each shot is a knell,
Each sword-sweep a fate—they reel !'

"One by one fall our men, each girt with his slain,
A death-star with belts ! 'Charge !' we break them !—In vain !
From the heights their batteries roar ;
The fire-slucies burst ; through that flood, in a rain
Of iron, we strike for the shore.

"Thunder answers to thunder, bolts darken the air,
To breathe is to die ; their funeral glare
The lit hills on our brave ones rolled :
What of that ? They had entered the lists with Despair,
And the lot which they met—they foretold.

"Comrade sinks heaped on comrade ! A ghastly band
That fell tide, when it ebbs, shall leave on the strand :
Of the swimmers who stemmed it that day
A spent, shattered remnant we struggle to land,
And wish we were even as they."

Oh, Britain, my country ! Thy heart be the tomb
Of those who for thee rode fearless to doom,
The sure doom which they well foreknew :
Though mad was the summons, they saw in the gloom
Duty beckon, and followed her through.

She told not of trophies,—of medal or star,
Or of Glory's sign-manual graved in a scar,
Or how England's coasts shall resound
When brothers at home greet their brothers from war,
As they leap upon English ground.

She told not of streets lined with life up to heaven,
 One vast heart with one cry till the welkin is riven—
 “Oh, welcome ye valiant and tried!”
 She told not of soft arms that clasped the re-given;
 She only said “Die!”—and they died.

Let Devotion henceforth Balaclava own
 No less than Thermopylæ, meet for her throne;
 And thou Britain—thou mother bereft—
 By thy grief for the sleepers who hear not thy moan,
 Count the worth of the sons thou hast left.

WESTLAND MARSTON, LL.D.

Charger.—A war horse.

Chine.—The backbone or spine.

Trophies.—Triumphal monuments.

Sign-manual.—The name of a person written with his own hand.

Lat. manus, the hand.

Thermopylæ.—A pass in Greece celebrated for its heroic defence by Leonidas and 300 Spartans against Xerxes. See poem on Leonidas.

LESSON LXV.

THE CITY OF THE DEAD.

THE material with which Herculaneum was destroyed was originally identical with that which destroyed Pompeii, but it having been afterwards fused into a concrete mass by the action of streams of boiling water, and become hardened in the cooling, the attempt to exhume this city and its treasures has failed. The dusty pumice-stone material, however, entombing Pompeii is still light and friable, and easily removed. The upper storeys of the buildings were probably composed of wood, and were either burned off or forced in by the enormous weight of the overwhelming mass.

With this exception we see a beautiful and once flourishing city just as it existed eighteen centuries ago. As yet one-third only of the city has been exhumed; the excavations are carried on by Government, and no visitor is allowed to go over the city without a military guide. We had brought our own guide from Naples, but, in spite of that, a soldier accompanied us closely the whole time of our inspection. This is doubtless a necessary precaution, as day by day articles of value are being discovered.

The bodies first found were recovered in a very imperfect manner; but, a few years ago, a very ingenious plan was hit upon for securing them entire. A skeleton does not of course occupy the space of the original body, the flesh perishing off and leaving a hollow between the bones and their enveloping earth. When a workman finds that he has come to a hollow space he reports to the authorities; a more careful examination is then made by means of minute probings and soundings; the uppermost part of the hollow space is determined, and then plaster of Paris is poured in till the hollow is filled; when this has solidified, the surrounding earth is removed, and there is the perfect form of the original man in the very attitude in which he was overtaken by his terrible death. One most touching figure I saw, evidently that of a young girl writhing in the very agony in which she passed away. Her foot is lifted in pain, one hand presses a handkerchief to her head, and you can see that she was only covered by a thin night-dress, for the very texture of the material can be traced on the shoulder.

The first street that you enter is the street of the Tombs, a part of the old Appian Way, and you are at once struck with the wonderful preservation of the

pavement, and the seeming freshness of everything about you.

The shroud of years thrown back, thou dost revive,
Half dead, half buried—dead, yet still alive,
Gathering the world around thee to admire
Thy disinterment, and with hearts on fire
To catch the form and fashion of the time
When Pliny lived and thou wert in thy prime.

To pace the lone and silent streets, and to come everywhere upon evidences of a seemingly recent life is startling in the extreme. You can still read the painted names of the long-dead residents on the door-posts. In that gateway the body of a sentinel was found at his post. There is the house of Diomede, with the colours on its frescoed walls still singularly fresh. There is the room where his daughter's skeleton was found, with her marriage ring fresh on her finger; and there is the dining-room where the wedding banquet might have been held, and where still you see the wine-cooler and the frescoed fruit. Here is the gateway near which the skeleton of Diomede himself was found, with a key in one hand and gold ornaments in another. In that street the charred corpse of a man in the act of running away with gold was found. You see the house of Sallust, with a fine fresco of Diana and Actæon on its walls. You are shown a bakehouse and ovens where thirty loaves of bread were recently found, and a cellar containing "amphoræ," or wine-jars, stamped with the maker's name—some cracked and *mended*. In that house forty-six surgical instruments were found, showing an advanced state of medical science. In another, supposed to be the Custom-house, were discovered steelyards and weights; and in another, on a counter, evidently of an

apothecary's shop, was found a box of pills, and by its side a small cylindrical roll waiting to be cut up. The public baths are shown you, with the marble steps as fresh as yesterday, and the well where the water was drawn, with the marks of the rope on the rim.

Signs outside the houses indicate the trades pursued therein. One represents two men carrying an amphora; this was evidently a wine-shop. And on another you see a painting of a boy mounted on the back of another boy, and undergoing the process of flagellation—unmistakably a school—and showing that in those days, as well as in ours, there were thought to be various channels through which learning might be conveyed.

We visited the amphitheatre, some little distance from the city, and which at the time of the first outbreak is said to have been crowded with spectators. Returning to the city, we saw the ruins of the Forum and of the Temple of Venus, and were shown the tribunal of the magistrates, with the judges' seats, and went down into the prisons below. There is the Temple of Isis—one of the most perfect of ancient temples—and the secret stairs by which the priests ascended to deliver the oracle; and here also is a refectory, where men were dining at the moment the eruption commenced; and where chickens' bones, eggs, and earthen vessels were discovered. Burnt bread was also found here, together with the skeletons of priests who had not time to escape. Near the remains of one lay an axe, from which it would appear that he had delayed his departure till the door was choked up with falling ashes, and so had attempted to force his way through the walls with a hatchet. He had already penetrated through two, but before he could break

through the third death arrested his flight. There, too, are the theatres, near one of which you are shown a place where a man was found in the stocks; and a marble slab, in process of polishing, is pointed out to you, the polishing of a part only of its surface being complete; and in the Forum you see an unfinished marble column which was being erected in place of another of "tufa," the mark of the chisel still perfectly distinct; and hinges are still to be seen on some of the door-posts; and the ruts are visible in the streets, and the stepping-stones for the crossings, and the worn footways—all can be traced, and you can scarcely believe that the trees and flowers around you are not identical with those blooming 1800 years ago; and might even fancy that the bird twittering over your head was carolling there before the sky became darkened by that cloud of death, and that it has just flown back to look at the destruction from which it had itself escaped.

'To Rome and Back,' by W. Evill.

Concrete.—Solid. Literally, that which has grown together. *Lat.* *cresco*, to grow.

Friable.—Crumbling.

Exhume.—To dig out. *Lat.* *humus*, the ground.

Pliny the elder lost his life in the eruption of Vesuvius which overwhelmed Herculaneum and Pompeii, A.D. 79.

Fresco.—A wall-painting, so called either because it is executed while the plaster is still fresh, or because it is used on walls in the open air. *Ital.* *fresco*, fresh.

Flagellation.—Whipping. *Lat.* *flagellum*, a whip.

Refectory.—An eating-room.

Tufa.—A volcanic rock formed of scoria and ashes.

LESSON LXVI.

DRIVER ANTS.

PERHAPS one of the most terrible of insects is that which is appropriately called the Driver Ant, of western Africa. This insect is a truly remarkable creature. Although it is to be found in vast numbers, it has never been found in a winged condition, and neither the male nor the female have as yet been discovered. The workers are uniform in colour, but exceedingly variable in size. Their hue is a deep, brownish black, and their length varies from half an inch to one line, so that the largest workers nearly equal the common earwig, while the smallest are no larger than the familiar red ant of our gardens.

They are called Driver Ants because they drive before them every living creature. There is not an animal that can withstand the Driver Ants. In their march they carry destruction before them, and every beast knows instinctively that it must not cross their path. They have been known even to destroy the agile monkey when their swarming host has once made a lodgment on its body. When they enter a pigsty, they soon kill the imprisoned inhabitants, whose tough hide cannot protect them from the teeth of the Driver Ants. Fowls they destroy in numbers, killing in a single night all the inhabitants of the hen-roost, and, having destroyed them, have a curious method of devouring them.

The Rev. Dr. Savage, who has experimented upon these formidable insects, killed a fowl and gave it to the ants. At first they did not seem to pay much attention to it, but he soon found that they were in reality

making their preparations. Large parties of the insects were detached for the purpose of preparing a road, and worked with the assiduity which seems to be a characteristic of these energetic insects. Numbers of them were employed in smoothing the road to the nest by removing every obstacle out of the way, until, by degrees, a tolerably level road was obtained.

The ants are possessed of strength which seems gigantic when compared with their size, carrying away sticks four or five times as large as themselves, and never failing to pounce upon any grub or insect that might happen to be lurking beneath their shelter. They always carried such burdens longitudinally, grasping them with their jaws and legs, and passing the load under the body. Some of these roads are more than two hundred yards in length.

Meanwhile, the other ants were busy with the fowl. Beginning at the base of the beak, they contrived to pull out the feathers one by one, until they stripped it regularly backwards, working over the head, along the neck, and so on to the body. This was evidently a very hard task, as the insects did not possess sufficient strength to pull out the feathers by main force, and were consequently obliged to grub them up laboriously by the roots.

The next business was to pull the bird to pieces, and at this work they were left. Unfortunately, the experiment was spoiled by the natives, who stole the fowl, thinking that the ants had eaten so many of their poultry that they were justified in retaliation. Others chose to excuse themselves by saying that they thought the fowl to be a fetish offering to the ants, and accordingly took it away from them.

So completely is the dread of them on every living

creature, that on their approach whole villages are deserted, and in extreme cases the entire population is forced to take to the rivers, knowing that the insects will not enter water unless obliged to do so, although on occasions they do not hesitate to commit themselves to the waves, as will presently be seen. The order of their marching is very curious, and is well described by Dr. Savage:—

“Their sallies are made in cloudy days and in the night, chiefly in the latter. This is owing to the uncongenial influence of the sun, an exposure to the direct rays of which, especially when the power is increased by reflection, is almost instantaneously fatal. If they should be detained abroad till late in the morning of a sunny day by the quantity of their prey, they will construct arches over their path, of dirt agglutinated by a fluid excreted from their mouth.

“If their way should run under thick grass, sticks, &c., affording sufficient shelter, the arch is dispensed with; if not, so much dirt is added as is necessary to eke out the arch in connection with them. In the rainy season, or in a succession of cloudy days, the arch is seldom visible; their path, however, is very distinct, presenting a beaten appearance, and freedom from everything moveable.

“In cloudy days, when on their predatory excursions, or migrating, an arch for the protection of the workers is constructed of the bodies of their largest class; their widely extended jaws, long slender limbs, and projecting antennæ intertwining, forming a sort of network, that seems to answer well their object.

“Whenever an alarm is given, the arch is instantly broken, and the ants, joining others of the same class on the outside of the line, who seem to be acting as com-

manders, guides, and scouts, run about in a furious manner in pursuit of the enemy. If the alarm should prove to be without foundation, the victory won, or danger passed, the arch is quickly renewed, and the main column marches forward as before, in all the order of an intellectual military discipline."

Sometimes, as is usual in tropical countries, the rain descends like a flood, converting in a few minutes whole tracts of country into a temporary lake. The dwellings of the Driver Ant are immediately deluged, and, but for a remarkable instinct which is implanted in the insects, most of the ants, and all the future brood, would perish. As soon as the water encroaches upon their premises, they run together and agglomerate themselves into balls, the weakest (or the "women and children," as the natives call them) being in the middle, and the large and powerful insects on the outside.

These balls are much lighter than water, and consequently float on the surface until the floods retire, and the insects can resume their place on dry land. The size of the ant-balls is various; but they are, on an average, as large as a full-sized cricket-ball. When a colony of these insects has been established near a house, the inhabitants naturally endeavour to destroy it. The habitation is very simple and artless, and generally consists of a mere hole in a rock or bank, in which the creatures assemble. They are very fond of usurping the sepulchres of the dead, which are usually excavated in the sides of hills, and are about eighteen inches in depth.

The natives generally try to destroy the colony by heaping dry leaves of the palm upon the dwelling, and setting fire to the heap. When this plan was tried, it was found to be very unsatisfactory; for the greater

mass of the insects contrived to make their escape, and were found upon neighbouring trees, clinging in heavy bunches and long festoons, which connected one branch with another, and formed ladders over which the insects could pass. These festoons were made in a very curious manner. First, a single ant clung tightly to a branch, and then a second insect crawled cautiously down its suspended body, and hung to its long outstretched limbs. Others followed in rapid succession, until they had formed a complete chain of ants, which swung about in the wind.

One of the largest workers then took its stand immediately below the chain, held firmly to the branch with its hind limbs, and dexterously caught with its forelegs the end of the living chain as it swung past. The ladder was thus completed, and fixed ready for the transit of insects; and, in a similar way, the whole tree was covered with festoons of ants, until it was blackened with their sable bodies.

They can even cross streams by means of these ladders. Crawling to the end of a bough which overhangs the water, they form themselves into a living chain, and add to its length until the lowermost reaches the water. The long, wide-spread limbs of the insect can sustain it upon the water, especially when aided by its hold on the suspended comrade above. Ant after ant pushes forward, and the floating portion of the chain is thus lengthened, until the free end is swept by the stream against the opposite bank. The ant which forms the extremity of the chain then clings to a stick, stone, or root, and grasps it so firmly that the chain is held tightly, and the ants can pass over their companions as over a suspension-bridge.

REV. J. G. WOOD.

Assiduity.—Close application; e. g. He worked with great assiduity. *Lat. sedeo*, to sit.

Longitudinally.—In the direction of the greatest length.

Retaliation.—Revenge.

Fetish.—An object selected for worship, as a tree, a stone, a post, &c.

Uncongenial.—Unsuitable.

Agglutinate.—To stick together; e. g. One word sometimes becomes agglutinated to another.

Excrete.—To throw off. *Lat. cerno*, to separate.

Predatory excursions.—Excursions for the purposes of plundering. *Lat. præda*, prey.

Antennæ.—The so-called "feelers" of certain insects.

Agglomerate.—To collect into a ball or mass. *Lat. glomus*, a ball of yarn.

LESSON LXVII.

THE ALMA.

THOUGH till now ungraced in story,
 Scant although thy waters be,
 Alma, roll those waters proudly,
 Roll them proudly to the sea!
 Yesterday unnamed, unhonoured,
 But to wandering Tartar known,
 Now thou art a voice for ever,
 To the world's four corners blown.
 In two nations' annals written,
 Thou art now a deathless name,
 And a star for ever shining
 In their firmament of fame.
 Many a great and ancient river,
 Crowned with city, tower, and shrine,
 Little streamlet, knows no magic,
 Has no potency like thine;
 Cannot shed the light thou sheddest
 Around many a living head;

Cannot lend the light thou lendest
To the memories of the dead.
Yea, not all unsoothed their sorrow
Who can proudly answering say,
When the first strong burst of anguish
Shall have wept itself away—
“He hath passed from us, the loved one,
But he sleeps with them that died,
By the Alma, at the winning
Of that terrible hill-side.”
Yes, and in the days far onward,
When we are all as cold as those
Who beneath thy vines and willows,
On their hero-beds repose,
Thou on England’s banners blazoned,
With the famous fields of old,
Shalt, when other fields are winning,
Wave above the brave and bold.
And our sons unborn shall nerve them
For some great deed to be done,
By that twentieth of September,
When the Alma’s heights were won.
O thou river, dear for ever
To the gallant, to the free,
Alma, roll thy waters proudly,
Roll them proudly to the sea.

ARCHBISHOP TRENCH.

Tartar.—The reference is to the nomadic Tartars who inhabited the Crimea.

Blazon.—To set forth conspicuously.

LESSON LXVIII.

THE DEATH OF NELSON.

It had been part of Nelson's prayer that the British fleet might be distinguished by humanity in the victory he expected. Setting an example himself, he twice gave orders to cease firing upon the 'Redoubtable,' supposing that she had struck because her great guns were silent; for, as she carried no flag, there was no means of instantly ascertaining the fact. From this ship, which he had thus twice spared, he received his death. A ball, fired from her mizen-top, which, in the then situation of the two vessels, was not more than fifteen yards from that part of the deck where he was standing, struck the epaulette on his left shoulder, about a quarter after one, just in the heat of action. He fell upon his face, on the spot which was covered with his poor secretary's blood. Hardy (his captain), who was a few steps from him, turning round, saw three men raising him up. "They have done for me at last, Hardy," said he. "I hope not," cried Hardy. "Yes," he replied, "my backbone is shot through."

Yet even now not for a moment losing his presence of mind, he observed, as they were carrying him down the ladder, that the tiller-ropes, which had been shot away, were not yet replaced, and ordered that new ones should be rove immediately; then, that he might not be seen by the crew, he took out his handkerchief, and covered his face and his stars. Had he but concealed these badges of honour from the enemy, England, perhaps, would not have had cause to receive with sorrow the news of the battle of Trafalgar. The cockpit was crowded with wounded and dying men, over whose

bodies he was with some difficulty conveyed, and laid upon a pallet in the midshipmen's berth. It was soon perceived, upon examination, that the wound was mortal. This, however, was concealed from all except Captain Hardy, the chaplain, and the medical attendants. He himself, being certain, from the sensation in his back, and the gush of blood he felt momentarily within his breast, that no human care could avail him, insisted that the surgeon should leave him, and attend to those to whom he might be useful; "For," said he, "you can do nothing for me." All that could be done was to fan him with paper, and frequently to give him lemonade to alleviate his intense thirst. He was in great pain, and expressed much anxiety for the event of the action, which now began to declare itself. As often as a ship struck, the crew of the 'Victory' hurrahed, and at every hurrah a visible expression of joy gleamed in the eyes and marked the countenance of the dying hero.

But he became impatient to see Captain Hardy, and as that officer, though often sent for, could not leave the deck, Nelson feared some fatal cause prevented him, and repeatedly cried, "Will no one bring Hardy to me? He must be killed! He is surely dead!" An hour and ten minutes elapsed from the time when Nelson received his wound before Hardy could come to him. They shook hands in silence, Hardy in vain struggling to suppress the feelings of that most painful yet sublimest moment. "Well, Hardy," said Nelson, "how goes the day with us?" "Very well," replied Hardy; "ten ships have struck, but five of the van have tacked, and show an intention to bear down upon the 'Victory.' I have called two or three of our fresh ships round, and have no doubt of giving them a drub-

bing." "I hope," said Nelson, "none of our ships have struck?" Hardy answered, "There was no fear of that." Then, and not till then, Nelson spoke of himself. "I am a dead man, Hardy," said he; "I am going fast; it will be all over with me soon; come nearer to me." Hardy observed that he hoped Mr. Beattie (the surgeon) could yet hold out some prospect of life. "Oh no," he replied, "it is impossible; my back is shot through—Beattie will tell you so." Captain Hardy then once more shook hands with him, and, with a heart almost bursting, hastened upon deck.

By this time all feeling below the breast was gone; and Nelson, having made the surgeon ascertain this, said to him, "You know I am gone; I know it—I feel something rising in my breast (putting his hand on his left side) which tells me so." And upon Beattie's inquiring whether his pain was very great, he replied, "So great, that he wished he were dead." "Yet," said he, in a lower voice, "one would like to live a little longer too!"

Captain Hardy, some fifty minutes after he had left the cockpit, returned, and again taking the hand of his dying friend and commander, congratulated him on having gained a complete victory. How many of the enemy were taken he did not know, as it was impossible to perceive them distinctly, but fourteen or fifteen at least. "That's well," cried Nelson, "but I bargained for twenty." And then, in a stronger voice, he said, "Anchor, Hardy, anchor." Hardy upon this hinted that Admiral Collingwood would take upon himself the direction of affairs. "Not while I live, Hardy," said the dying Nelson, ineffectually endeavouring to raise himself from the bed; "do you anchor." His previous order for preparing to anchor had shown how

clearly he foresaw the necessity of this. Presently, calling Hardy back, he said to him in a low voice, "Don't throw me overboard," and he desired that he might be buried by his parents, unless it should please the king to order otherwise. "Kiss me, Hardy," said he. Hardy knelt down and kissed his cheek, and Nelson said, "Now, I am satisfied. Thank God, I have done my duty." Hardy stood over him in silence for a moment or two, then knelt again and kissed his forehead. "Who is that?" said Nelson; and being informed, he replied, "God bless you, Hardy." And Hardy then left him for ever. SOUTHEY.

Mizen-top.—The top of the mizen-mast, i. e. the mast which supports the after-sails.

Epaulette.—An ornament worn by military and naval men on their shoulders. *Fr. épaule*, a shoulder.

Tiller.—The bar employed to turn the helm of a ship. The tiller-rope forms a communication between the tiller and the wheel.

Cockpit.—An apartment in a ship of war where the wounded receive surgical treatment.

Rove.—To draw a cord through an opening.

LESSON LXIX.

ON AN INFANT'S DEATH.

A LITTLE life,
Five summer months of gladness,
Without one cloud of sorrow, sin, or strife—
Cut short by sudden gloom and wintry sadness.

A little mound,
By buttress grey defended,
Watered with tears and garlanded all around,
By gentle hands affectionately tended.

A little cot,
Empty, forlorn, forsaken,
Silent remembrancer that he is not—
Gone—past our voice to lull or kiss to waken.

A little frock
He wore, or hat that shaded
His innocent brow—seen with a sudden shock
Of grief for that dear form so quickly faded.

A little flower,
Because he touched it, cherished—
Fragile memorial of one happy hour
Before the beauty of our blossom perished.

A little hair,
Secured with trembling fingers—
All that is left us of our infant fair,
All we shall see of him while this life lingers.

A little name,
In parish records written,
A passing sigh of sympathy to claim
From other fathers for a father smitten.

But a great trust
Irradiates our sorrow,
That though to-day his name is writ in dust,
We shall behold it writ in heaven to-morrow.

And a great peace
Our troubled soul possesses,
That though to embrace him these poor arms must cease,
Our lamb lies folded in the Lord's caresses.

A little pain
To point his life's brief story—
A few hours' mortal weariness, to gain
Unutterable rest, unending glory.

A little prayer
By lips Divine once spoken,
"Thy will be done!"—is breathed into the air
From hearts submissive though with accents broken.

A little while
And Time no more shall sever—
But we shall see him with his own sweet smile,
And clasp our darling in our arms for ever!

REV. R. WILTON.

Forlorn.—Forsaken.

Fragile.—Frail, delicate. *Lat. frango*, to break.

Irradiate.—To illuminate. *Lat. radius*, a ray.





